Working in Early Care and Education

in North Carolina



2012 Workforce Study

March, 2013
Child Care Services Association



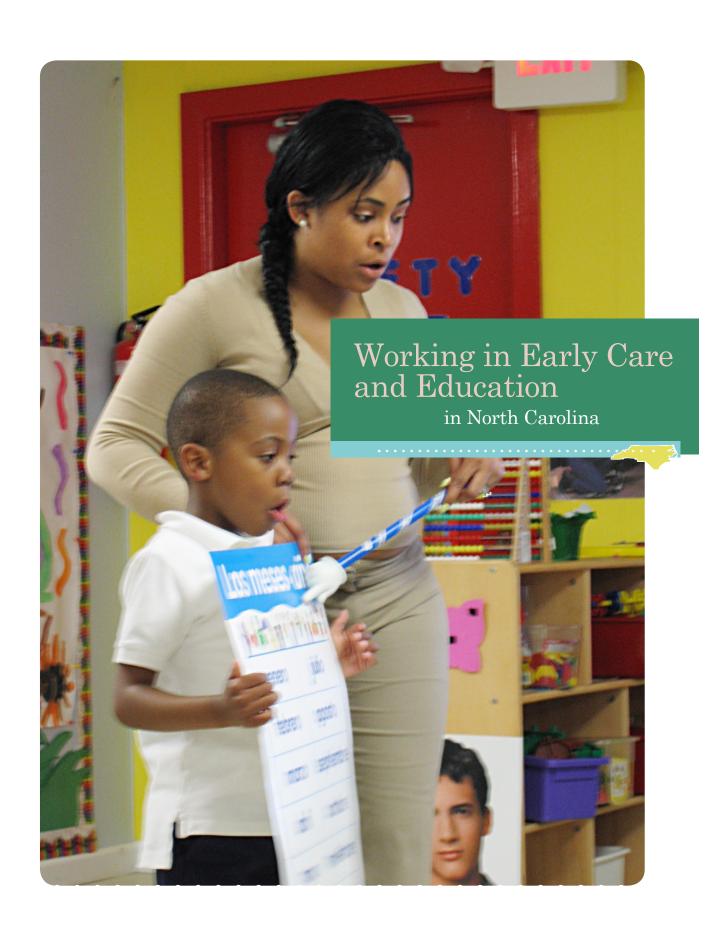


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Introduction

Through funding from the Division of Child Development and Early Education, through a Race to the Top Early Learning Challenge Grant, Child Care Services Association (CCSA) conducted a statewide survey of the early care and education workforce in North Carolina from September 2012 through February 2013. This study provides comprehensive data on teachers, assistant teachers and directors in early care and education centers and family child care providers and on the licensed early care and education programs in which they work. Additionally, information gathered from this study is compared to similar studies conducted by CCSA in 2011 and 2003.

Data for the center based workforce report were collected through two linked surveys of samples of early childhood program directors and of teachers working in those programs conducted from September 2012 to February 2013

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(based on information as of May 2012). Useable surveys were obtained from 73% of a stratified random sample (n=1010) of all directors of licensed child care programs in North Carolina. This sample constitutes about 18% of the population of all early care and education programs serving

children birth through five in the state. The sample was designed to include 25% of the programs within each of the 14 Child Care Resource and Referral (CCR&R) regions . A map of the regions can be found in Appendix A. Participating directors distributed surveys to their teaching staff and useable surveys were returned by 2,608 teaching staff out of an estimated 6,321 (41%). Program and teacher level data have been weighted to reflect the statewide populations of centers and teaching staff respectively, adjusting for known individual, program and community characteristics associated with response bias. Percentages and other values reported in tables and graphs incorporate these sampling weights, permitting extrapolation to the population of centers (N=4,034) serving children under six who are not yet in school and an estimated teaching staff population of approximately 32,500. More information about the sampling design and survey execution is contained in Appendix B to this report.

Data for this family child care provider report were collected through a survey of a sample of family child care providers conducted from September 2012 to January 2013 (based on information as of May 2012). Numerous attempts were made to survey a stratified random sample (n=733) of all licensed family child care providers in North Carolina which constitutes about 25% of the population of all family child care homes serving children birth through five years old within each of the 14 Child Care Resource and Referral (CCR&R) regions. A map of the regions can be found in Appendix A. Non-responding family child care providers were replaced after numerous and varied unsuccessful attempts at securing responses in order to reach 70% of the original sample numbers. Useable surveys were obtained from 522 programs which represent about 18% of the overall family child care provider population. Program data have been weighted to reflect the statewide populations of family child care providers, adjusting for known individual, program and community characteristics associated with response bias. Percentages and other values reported in tables and graphs incorporate these sampling weights, permitting extrapolation to the population of family child care programs (N=2,900) serving children under six who are not yet in school. More information about the sampling design and survey execution is contained in Appendix B to this report.

Throughout this report, median data is reported as the measure of central tendency unless otherwise noted. As such, "average" is used interchangeably with "median".

Data from NC Division of Child Development and Early Education (DCDEE), May 2012.

Data from NC Division of Child Development and Early Education (DCDEE), May 2012



Early Care and Education (ECE) Centers

Star Rating and Organizational Structure. The percentages of responding early care and education centers by their star ratings as compared to the overall population are shown in Table 1. "Under 3 Stars" includes 1- and 2-star licensed centers, GS-110 (Letter of Compliance) centers and centers with a temporary or provisional license. The star rating of study respondents closely reflects the distribution of sites by star ratings in the general population.

Centers responding in 2011 look similar to those responding in 2012 when organizational structure is examined (see Table 2). In this table, organizational categories were collapsed for simplification. (See Appendix C for information on grouping by organizational categories.) There is a higher percent of for profit centers responding in 2012 and a lower percent of both non-profit and public sponsored programs. The differences across the state, however, are minimal. NC Pre-K programs are represented in all three organizational structures. Public pre-k programs that are not licensed were not included as part of this study.

| Table 1 Profile of Responding Centers vs. Overall Population of Centers | | | | | | | |
|--|----------|------------|------------------|-----|--|--|--|
| Responses All Centers ³ | | | | | | | |
| | Programs | Enrollment | Programs Enrollm | | | | |
| 4 or 5 Stars | 67% | 73% | 61% | 69% | | | |
| 3 Stars | 18% | 13% | 21% | 16% | | | |
| Under 3 Stars | 15% | 14% | 18% | 16% | | | |

Includes 1- and 2-star licensed centers, GS-110 (Letter of Compliance) and centers with a temporary or provisional license.

Within regions, program auspice of responding programs varies dramatically. For profit programs can comprise 73% of

| Table 2 | |
|--|------------|
| Organizational Structure of Centers F in 2011 vs. 2012 | Responding |

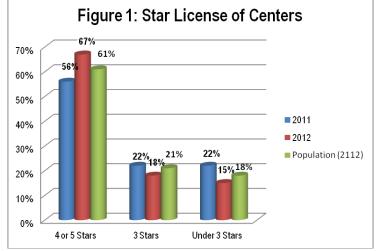
| | 2011 | 2012 |
|--------------------|-----------|-----------|
| | Responses | Responses |
| For profit Centers | 54% | 58% |
| Non-Profit Centers | 24% | 22% |
| Public Sponsored | 22% | 20% |
| Public Sponsored | 22% | 20% |

programs as in Region 6 or as few as 37% as in Region 9. Similarly, non-profits range from 30% of the programs in Region 3 to just 14% in Region 4. Finally, public sponsored programs represent 40% of the programs in Region 9 yet only 3% in Region 6. These differences can affect aspects of the workforce such as salaries and benefits.

Star ratings of programs who responded are a bit different from those responding in 2011 and from the population as a whole (see Table 1 and Figure 1), which may impact some of the results in this study. In the previous study, 56% of centers had 4 and 5 stars, 22% of centers had 3 stars and 22% of centers had less than 3 stars. In

2012, however, 67% of centers responding are 4 or 5 stars, 18% are 3 stars and just 15% are under 3 stars. The difference in star ratings between 2011 and 2012 might be explained by a state law that was implemented during the study. This

law requires child care programs to have 3 to 5 stars to receive child care subsidies. Many 1 and 2 star programs transitioned to higher stars during this period. Despite these differences, over time program quality has improved as measured by star ratings. In 2003, just 30% of responding programs were 4 or 5 stars, 38% were 3 stars and 32% were under 3 stars. The investment in technical assistance, professional development and support for providers has paid off in increased quality as indicated by star levels. Programs have used the resources provided by Smart Start, the CCR&R system, T.E.A.C.H. Early Childhood® Project and NC Pre-K to make real progress in improving classrooms and centers.



³ Data from NC Division of Child Development and Early Education (DCDEE), May, 2012

Star Rating and Organizational Structure of Regions. Early care and education enrollment in star ratings and organizational structure of programs responding to the survey in the regions sometimes mirrors the State averages and other times differ greatly. Birth to five enrollment numbers of those centers who responded to the 2012 workforce study survey are reflected in Table 3.

Table 3
Birth to Five Enrollment by Star Rating and Organizational Structure of Responding Centers by Region

| | | Star Rating | | Organiz | ational S | tructure |
|-----------|------------------|-------------|-----------------|---------------|----------------|----------|
| | Under 3 Stars | 3 Stars | 4 or 5 Stars | For Profit | Non- Profit | Public |
| Region 1 | 36% | 9% | 55% | 29% | 23% | 48% |
| Region 2 | 13% | 4% | 83% | 48% | 17% | 35% |
| Region 3 | 24% | 5% | 71% | 69% | 19% | 12% |
| Region 4 | 25% | 10% | 65% | 60% | 15% | 25% |
| Region 5 | 9% | 27% | 64% | 54% | 26% | 20% |
| Region 6 | 16% | 8% | 76% | 62% | 30% | 8% |
| Region 7 | 14% | 6% | 79% | 64% | 29% | 8% |
| Region 8 | 8% | 13% | 79% | 51% | 29% | 20% |
| Region 9 | 2% | 6% | 92% | 46% | 26% | 27% |
| Region 10 | 13% | 15% | 72% | 46% | 33% | 22% |
| Region 11 | 15% | 16% | 69% | 53% | 24% | 23% |
| Region 12 | 13% | 14% | 73% | 69% | 22% | 8% |
| Region 13 | 7% | 18% | 75% | 62% | 25% | 13% |
| Region 14 | 4% | 13% | 83% | 36% | 28% | 35% |
| Statewide | 14% | 13% | 73% | 58% | 25% | 17% |
| | | | | | | |

Note: Percent of enrollment represented in this table reflects enrollment in centers (only) for those centers who responded to the 2012 workforce survey.

The overall quality of programs that children receive by regions differs greatly across the State. Region 1 tends towards lower overall star ratings with 36% of responding programs' birth to five enrollment being under 3 stars and only 55% at 4 or 5 stars. On the other end of the scale, programs responding to the survey in Region 9 reflected only 2% of birth to five enrollment being under 3 stars and 92% of enrollment at 4 or 5 stars. Closely matching the statewide average is Region 12 with 13% of early care and education enrollment under 3 stars, 14% at 3 stars and 73% at 4 or 5 stars.

In terms of organizational structure, most regions do not resemble statewide averages though Regions 5 and 13 look the most similar to the state overall. Region 12 has far fewer early childhood children enrolled in licensed public settings (8%) and far more in for profit programs (69%) than the state as a whole. Region 1 has the highest enrollment in public settings at 48%.

Staffing. The child care center staff that participated in the survey represented a wide variety of positions in the early childhood

field and worked with children of all ages. Weighting those responses to represent the total director population yielded results that show titles such as director (62%), director/owner (22%), principal (3%) and other positions (14%). These "other positions" included answers such as administrator, assistant director, coordinator, lead, manager and supervisor.

As for staff who completed a teacher survey, 72% identified themselves as teachers or lead teachers, 24% were assistant teachers, teacher's aides or floaters and 4% held other positions. Nearly half of those filing out the teacher survey indicated that they work with infants, toddlers or twos at least some of the time (49%). The other 51% indicated that they work only with older preschool children.



Wage Scales. Center directors reported compensation scales for center teaching staff that included low starting wages and limits on the highest wages paid to teachers and assistants (see Table 4). Starting teachers earned a median \$9.00 per hour which is a decrease from the starting wage for teachers in 2011 in terms of real buying power. Because of the

| Table 4 Median Hourly Wages in Child Care Centers | | | | | | |
|--|---|-----------|------------------------------------|---------------------------------|--|--|
| median nowny mages in emilia care centers | 2011 Wage in 2012 dollars ¹ | 2012 Wage | Real Change (2011 - 2012) | Percent Change 2011- 2012 | | |
| Starting Teacher Wage in Center | \$9.19 | \$9.00 | 97.93% | -2.07% | | |
| Highest Teacher Wage in Center | \$11.48 | \$12.00 | 104.53% | 4.53% | | |
| Starting Assistant Teacher Wage in Center | \$8.17 | \$8.00 | 97.92% | -2.08% | | |
| Highest Assistant Teacher Wage in Center | \$9.70 | \$10.00 | 103.09% | 3.09% | | |
| Notes: Median wages are reported. Data are based on direct | ctors' reports. | | | | | |

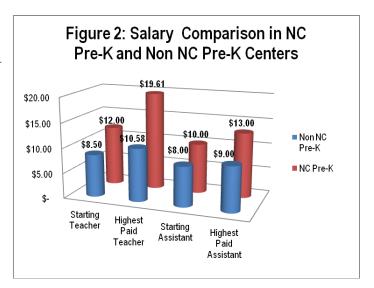


inflation rate, starting teachers actually are receiving a 2.07% decrease in compensation from one year ago. The same holds true for assistant teachers, with a median starting wage in 2012 of \$8.00 per hour, but an \$8.17 per hour median in 2011. Between the two years, assistant teachers show a decrease in buying power of 2.08%. Assistant teachers and substitute caregivers continued to earn lower wages

than other teaching staff.

For the highest paid teachers and assistant teachers, the outlook over the past year was a bit brighter. For both groups, they saw their compensation increase by 4.53% and 3.09% respectively. (Median highest teacher wages rose from \$11.48 per hour in 2011 to \$12.00 per hour in 2012. Median highest assistant teacher wages grew from a 2011 figure of \$9.70 per hour to \$10.00 in 2012.)

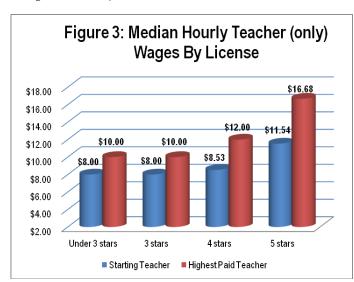
Licensed early care and education programs with NC Pre-K classrooms have better compensation at all levels as shown in Figure 2. For starting teachers and assistant teachers and for highest paid teachers and assistant teachers, working in settings with an NC Pre-K classroom results in higher compensation.



⁴ Adjusted for CPI using wage calculator from the BLS Website, http://www.bls.gov/data/inflation_calculator.htm

The difference is far greater for the highest paid teachers (85% higher in settings with an NC Pre-K classroom) but is still substantial at the starting assistant teacher level (25% higher in settings with an NC Pre-K classroom).

By State mandate, NC Pre-K classrooms are required to maintain high quality as indicated by higher license levels. Along with this requirement, teachers who work in NC Pre-K classrooms must have at least a bachelor's degree and



Birth-Kindergarten teaching license and must be compensated comparably to licensed teachers in public schools. Given these criteria, the fact that higher license levels overall yield higher starting salaries for both teachers and assistant teachers comes as no surprise (see Figure 3). Both teachers and assistant teachers who work in higher star rated programs earn higher wages. While those working in 4 star programs certainly fare better than those in 3 star programs or below, teachers and assistant teachers in 5 star programs far surpass the salaries of their counterparts in other licensed programs. Thirty-four percent (34%) of 4 star programs and 55% of 5 star programs have at least one NC Pre-K classroom.

Wage Scales of Regions. Breaking the wage scales down by regions shows great variation in starting and highest paid teachers and assistant teachers

geographically (see Table 5). Teachers living in Regions 2 and 14 can expect the lowest median wages of \$8.00/hour starting and \$10.00/hour highest. On the other end of the spectrum, in Region 9, median starting compensation hovers

Table 5

around \$10.08/hour with wages peaking around the \$14.00/hour mark. For starting assistant teachers, wages in Regions 2 and 5 are low, with assistant teachers making about \$7.50/hour. Highest paid assistant teachers in those regions make \$10.00 per hour and \$9.00 per hour respectively. To make a better earning, starting assistant teachers can move to Region 12 and earn a median wage of \$9.00/hour. Regions 8, 9 and 12 pay their highest paid assistant teachers a median of \$11.00 per hour. (Please see Appendix B for detailed information about salary imputations in small regions. Also note that the values in Regions 2 and 14 should be interpreted with caution as these estimates are based on fewer than 20 cases or had item response rates below 60%.)



| Median Wage Scales in ECE Centers by Region | | | | | | |
|---|---------------------|--------------------|-----------------------|----------------------|--|--|
| | Starting Teacher | Highest Teacher | Starting Assistant | Highest Assistant | | |
| Region 1 | \$8.44 | \$10.50 | \$8.00 | \$9.00 | | |
| Region 2 | \$8.00 | \$10.00 | \$7.50 | \$10.00 | | |
| Region 3 | \$8.00 | \$10.50 | \$7.75 | \$9.00 | | |
| Region 4 | \$8.25 | \$11.00 | \$8.00 | \$10.00 | | |
| Region 5 | \$8.00 | \$11.00 | \$7.50 | \$9.00 | | |
| Region 6 | \$9.00 | \$12.00 | \$8.00 | \$9.75 | | |
| Region 7 | \$9.00 | \$14.00 | \$8.00 | \$10.00 | | |
| Region 8 | \$9.00 | \$12.00 | \$8.50 | \$11.00 | | |
| Region 9 | \$10.08 | \$14.00 | \$8.00 | \$11.00 | | |
| Region 10 | \$8.65 | \$12.79 | \$8.00 | \$10.00 | | |
| Region 11 | \$9.00 | \$11.15 | \$8.25 | \$10.50 | | |
| Region 12 | \$10.00 | \$13.00 | \$9.00 | \$11.00 | | |
| Region 13 | \$8.39 | \$11.28 | \$8.00 | \$8.56 | | |
| Region 14 | \$8.00 | \$10.00 | \$8.00 | \$8.60 | | |
| Statewide | \$9.00 | \$12.00 | \$8.00 | \$10.00 | | |

| Table 6 Employment Benefits in Child Care Centers | | | | | | |
|---|------|------|--|--|--|--|
| | 2011 | 2012 | | | | |
| Fully Paid Health Insurance | 21% | 18% | | | | |
| Partially Paid Health Insurance | 30% | 31% | | | | |
| | | | | | | |
| Free Child Care | 10% | 10% | | | | |
| Reduced Child Care Fee | 55% | 67% | | | | |
| Parental Leave | 56% | 72% | | | | |
| | | | | | | |
| Paid Sick Leave | 67% | 68% | | | | |
| Paid Vacation | 86% | 85% | | | | |
| Paid Holidays | 90% | 91% | | | | |
| Paid Retirement Benefits | 40% | 40% | | | | |

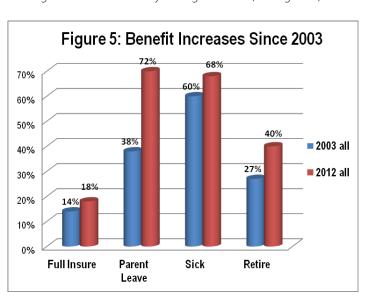
Employment Benefits. Employment benefits offered by centers in North Carolina are shown in Table 6. The percent of programs offering fully paid health insurance has decreased slightly since 2011 (21% to 18%). Those programs providing partially paid health insurance increased just slightly from 30% to 31%. This results in a net decrease of programs that provide some type of financial help with health insurance (51% in 2011 versus 49% in 2012).

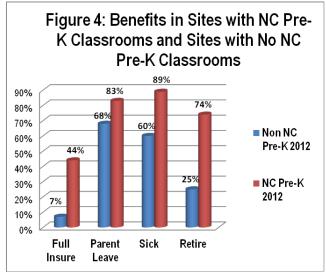
While there was no change in the percent of programs that offer free child care (10%) there was a dramatic increase in the percent of programs that offer some relief from the high cost of child care through reduced fees (from 55% to 67%). An even bigger increase can be seen in those programs offering parental leave which jumped from 56% in 2011 to 72% in 2011.

Paid time off has not shown much change since 2011 with roughly the same percentage of programs providing paid time off-sick, vacation and/or holiday in 2012. Paid holidays are the most common type of benefit with 91% of programs offering

this benefit to their staff. Unfortunately, paid sick time is offered in only 68% of programs. Because early care and education programs are notorious for being incubators for germs, failure to provide this benefit to staff often results in teachers either having to work while sick, thus adding to the pool of germs, found in programs, or having to take unpaid leave until they are well.

Over the years since NC Pre-K's inception (formerly More at Four), public pre-k programs have contributed to increases in many types of benefits as noted in Figure 4. Working in sites with an NC Pre-K classroom increases the opportunity to receive full health insurance, parental leave, sick time and retirement. As Figures 4 and 5 indicate, NC Pre-K programs are the drivers for increasing the overall benefits provided in 2012 in these areas from programs offering these benefits nine years ago in 2003 (see Figure 5).







Whether or not a child care provider receives any support with health insurance (as well as other benefits and their wages) relates to the organizational auspice of the program in which she works (see Table 7). All publicly sponsored programs provide their teachers with either free or reduced health insurance. Similarly, these centers have an average

| Table 7 | | | | | | | |
|---|--|---------------------------------|-------------------------------------|--|--|--|--|
| Health Insurance and Wages by Program Auspice | | | | | | | |
| Type of Center | Pct Employers Who Pay at Least Part Health Insurance | Median Starting Teacher Wage | Median Highest Paid Teacher Wage | | | | |
| Private for profit (single center) | 22% | \$8.00 | \$10.00 | | | | |
| Private non-profit (sponsored by faith communities) | 41% | \$8.50 | \$10.50 | | | | |
| Private for-profit (multi-center) | 52% | \$9.00 | \$12.00 | | | | |
| Private not for-profit (comm./board sponsor) | 63% | \$9.75 | \$13.36 | | | | |
| Head Start | 100% | \$12.95 | \$17.00 | | | | |
| Public School Program | 100% | \$17.91 | \$34.01 | | | | |
| Total (estimates weighted to Statewide Totals) | 49% | \$9.00 | \$12.00 | | | | |

highest wage that exceeds that of any other type of program. Those providers working in non-profits (excluding those sponsored by faith communities) fell just under public employees with 63% receiving full or partially paid health insurance and the next highest average wages (starting median salary of \$9.75/hour and highest median salary of \$13.36/hour). On the other end of the scale, employees in single center, for-profit programs had a median starting salary of just \$8.00/hour (average highest salary of \$10.00) and only 22% received support with health insurance.

These wage findings reflect similar national findings from the Government Accountability Office which found low wages among all child care providers but higher pay for individuals working in publicly funded programs such as Head Start.

Among teaching staff who had ever worked over 40 hours per week (42%), 44% said that their centers paid them time and a half for the overtime hours that they worked. When directors were asked this same question about their teaching staff, a similar 41% said that their teachers sometimes work over 40 hours per week. However, seventy percent (70%) of these directors explained that teachers who are asked to work over 40 hours per week are compensated at one and a half times their regular salary. Federal wage and hour law requires that non-exempt workers such as early care and education teachers receive time and a half for overtime hours. This law does not apply to public sector employees who may receive time off in lieu of paid compensation. Regardless of setting, 21% of teachers reported that they have worked over 40 hours per week and have not received any type of compensation.

Family Child Care (FCC) Homes

Responding family child care home providers somewhat mirrored the overall population of home providers in the State (see Table 8) with slight differences. Overall, there was a higher percentage of 4 and 5 star responding homes than the

| Table 8 Profile of Responding Homes vs. Overall Population of Homes | | | | | |
|--|-------------------|----------|--|--|--|
| Responses Overa | | | | | |
| 4 or 5 Stars | 40% | 35% | | | |
| 3 Stars 22% | | | | | |
| Under 3 Stars* 37% 41% | | | | | |
| * Includes 1- and 2-star licensed homes and horovisional license. | nomes with a temp | orary or | | | |

overall population (40% vs. 35%). Similarly, fewer programs with under 3 stars responded (37% vs. 41%). While these numbers may somewhat affect the information presented in this study, the effect should be minimal.

Family child care providers have been in business for a median of 10.0 years (compared to 5.4 years in 2003). They have been in the field for a median of 16.0 years.

Providers worked 52.5 hours per week on average (median). Among the special services offered by the responding

US Government Accountability Office Report to the Chairman, Committee on Finance, US Senate, February 2012. "Early Childcare and Education. HHS and Education are Taking Steps to Improve Workforce Data and Enhance Worker Quality."

homes were evening care (78%), overnight care (50%), drop-in care (71%), holiday care (44%), weekend care (42%) and care for sick children (26%). These are larger percentages than 2003 (53% evening, 27% overnight, 53% drop-in, 25% holiday and 3% sick child) suggesting either the greater need for non-traditional types of care or the greater willingness of providers to offer these types of services in their own homes. Enrollment for May 2012 ranged from zero to fifteen children, with a median of five young children in each home.

Earnings and Expenditures. Family child care providers' median gross monthly earnings are based on child care tuition fees, subsidy payments and Child and Adult Care Food Program reimbursements for May 2012. Their expenditures

included items such as food, toys, substitute care, advertising, training fees, diapers, crafts, transportation, supplies, field trips and gifts for the children. Home occupancy costs such as utilities, cleaning and rent or mortgage payments are not included. Based on these data, estimated gross yearly earnings were \$29,160. Food costs represent between a third and a half of providers' monthly expenditures, and 77% of family child care providers defrayed this expense by participating in the Child and Adult Care Food Program. In 2003, a similar percent, 78%, of providers participated in the Child and Adult Care Food Program.

| Table 9 Earnings and Expenditures of Family Child Care Homes | | | | | | |
|--|---------|---------|--|--|--|--|
| | 2003 | 2012 | | | | |
| Total Monthly Earnings (median) | \$1,949 | \$2,430 | | | | |
| Total Monthly Expenditures (median) | \$545 | \$880 | | | | |
| Hours Worked per Week (median) | 53 | 52.5 | | | | |
| Net Hourly Income (median) | \$5.71 | \$6.03 | | | | |

Median hourly earnings in 2012 were \$6.03, estimated by dividing net monthly earnings by the number of hours each home was open (see Table 9). In comparison, family child care providers had a net hourly income of \$5.71 in 2003. According to the Consumer Price Index, \$5.71 per hour in 2003 translates to \$7.12 in 2012 dollars. This being the case, family child care provider earnings have actually dropped by 15.3% over the last nine years.

Benefits. Family child care providers usually work alone or with the help of an unpaid or underpaid family member, and are less likely than centers to have established policies regarding paid benefits. Hence, family child care providers are much less likely to receive any paid benefits. Child care tuition covered providers' vacation time in 53% of homes, and 45% of providers charge for days when they are sick. These numbers are similar overall to 2003, but broken apart, in 2003, 43% of parents paid for vacation days and 51% paid for sick days. These measures help identify the degree to which providers run their child care programs with a business designed to meet the providers' personal and professional needs.

Profile of the Early Care & Education Workforce

The early care and education workforce in North Carolina, whether working in centers or homes, is overwhelmingly female and includes a large proportion of workers who have children of their own (see Table 10). Among the teaching staff who have children, 25% indicated that their children were enrolled in the centers where they work. Of these respondents, 78% received free or reduced child care from the center; 33% received government assistance to help them pay for child care (note: respondents can receive both kinds of assistance). The vast majority of

| Table 10 Demographic Profile of the Child Care Workforce | | | | | | |
|--|----------|-----------|----------------------------|------|---------------|-------|
| | Center D | Directors | Teachers and Assistants | | FCC Providers | |
| | 2011 | 2012 | 2011 | 2012 | 2003 | 2012 |
| Median Age | 46 | 47 | 36 | 37 | 44 | 50 |
| Female | 97% | 96% | 99% | 99% | 99.5% | 99.6% |
| People of Color | 43% | 44% | 48% | 49% | 62% | 67% |
| Have Children | 89% | 90% | 74% | 75% | 94% | 93% |
| Single Parent w/Child 0-18 | 9% | 10% | 18% | 18% | 13% | 35% |
| At Least One Child 0-18 | 49% | 49% | 52% | 52% | 56% | 44% |
| Annual Family Income < \$30,000 | 15% | 17% | 59% | 60% | 45% | 34% |

those receiving government assistance with child care (91%) receive vouchers.
Approximately 10% have children who qualify and receive NC Pre-K funding, 5% receive Head Start funding and 3% are in Early Head Start. (Teachers were instructed to check all that apply.)

Just under half of the teaching staff in centers are people of color while a lower percent of center directors are people of color. However, the overall



percentage of people of color leading early care and education programs has increased by 14 percentage points in the last nine years. While the percent of teachers and assistants whose annual family income is under \$30,000 has remained fairly consistent since 2011, the 60% whose income remains under \$30,000 continue to face severe economic hardships.

When examining race of teachers only, median salaries are similar with white teachers making \$10.20 per hour and African-American teachers making \$10.00. This difference may be attributed to a lower percent of African-American teachers having a degree (55% versus 60%). Not only are white teachers more likely to have a degree than African-American teachers, they are also more likely to have a higher degree than African-American teachers. Thirty-five percent of white teachers have a bachelor's degree or higher, while 24% of African-American teachers have this same level of degree. African-American teachers, however, are more likely than white teachers to have a degree in the early childhood field (40% versus 31%).

Education of the Early Care and Education Workforce

The education of the early care and education workforce is a critical factor influencing children's early learning opportunities. This section profiles the educational attainment and aspirations of the workforce as expressed in the current survey. See Table 11 for education data on center directors (directors, director/owners and assistant directors), teachers (teachers and lead teachers), assistant teachers (assistant teachers, teacher aides and floaters) and family child care providers. Gains in degree-earning providers are a positive sign that the workforce is advancing its education to meet the needs of young children.

| Table 11 Education of Center Directors, Teachers, Assistant Teachers and Family Child Care Providers | | | | | | | | | |
|--|-----------|------|----------|------|-----------------------|------|---------------|------|--|
| | Directors | | Teachers | | Assistant Teachers | | FCC Providers | | |
| | 2011 | 2012 | 2011 | 2012 | 2011 | 2012 | 2003 | 2012 | |
| Highest Education Completed | | | | | | | | | |
| Bachelor Degree or More in ECE/CD | 19% | 19% | 13% | 13% | 5% | 2% | 1% | 4% | |
| Bachelor Degree or More in Other Field | 32% | 32% | 14% | 17% | 11% | 8% | 7% | 10% | |
| Associate Degree in ECE/CD | 20% | 22% | 20% | 22% | 16% | 18% | 6% | 21% | |
| Associate Degree in Other Field | 4% | 6% | 4% | 6% | 7% | 6% | 6% | 6% | |
| High School + Any College Courses | 25% | 20% | 47% | 40% | 50% | 52% | 55% | 52% | |
| High School + Workshops | <1% | <1% | 1% | 1% | 4% | 5% | 16% | 3% | |
| High School Only | <1% | 1% | 1% | 1% | 5% | 9% | 5% | 4% | |
| Less than High School | 0% | 0% | <1% | <1% | <1 | 1% | 4% | 2% | |
| Other Education Credentials | | | | | | | | | |
| N.C. EC Credential | 69% | 74% | 77% | 76% | 66% | 65% | 50% | 79% | |
| N.C. EC Administration Credential | 73% | 75% | 22% | 23% | 14% | 13% | 18% | 40% | |
| Child Development Associate (CDA) | 9% | 10% | 9% | 9% | 9% | 8% | 5% | 10% | |
| B-K/Preschool add-on | 10% | 12% | 10% | 11% | 1% | 2% | 0% | 2% | |
| Educational Pursuits | | | | | | | | | |
| Currently Taking ECE/CD Courses | 20% | 18% | 28% | 25% | 30% | 33% | 24% | 25% | |

Center directors have completed higher levels of education than teachers, assistant teachers and family child care providers, though none of the groups match the minimum education requirements for teachers and administrators in public elementary, middle and high schools. While 46% of directors, 37% of teachers, 20% of assistant teachers and 25% of family child care providers have a degree in early childhood education, others (33% of directors 21% of teachers, 14% of assistants and 16% of family child care providers) have a degree in a field other than early childhood or child

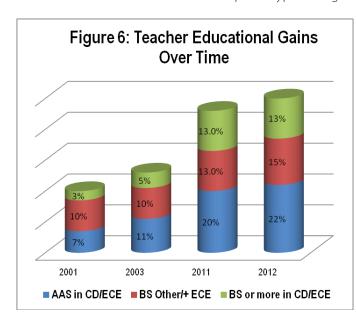
development. Some of these directors (93%) and teachers/assistant teachers (86%) however, have a college degree in fields other than early childhood education or child development and have taken at least one course in the field.

North Carolina's early care and education workforce has a strong interest in achieving higher levels of education. As shown in Tables 11, many directors, teachers, assistant teachers and family child care providers had completed college courses. Furthermore, 25% of the teachers, 33% of assistants and 25% of family child care providers said that they were currently taking courses leading to a degree or credential in the early childhood field. Of those taking classes, 38% of teachers and 39% of assistant teachers were working towards a two-year degree and 25% of teachers and 22% of assistant teachers were working towards a bachelor's degree.



In 2012, 79% of directors, 58% of teachers and 34% of assistants indicated that they had attained an associate, bachelor's or master's degree in some field. In comparison, 75% of directors and 51% of teachers and 39% of assistants in 2011 had earned an associate, bachelor's or master's degree in some field. Additionally, 12% of directors, 11% of teachers and 2% of assistant teachers have a B-K/Preschool add-on Teacher License compared to 10% of directors, 10% of teachers and 1% of assistant teachers in 2011. Family child care providers have also increased their educational credentials over the last decade so that nearly 80% have an NC Early Childhood Credential.

Investments in the early care and education system have paid off dramatically over time in terms of increased education levels of teachers specifically around early care and education coursework. Figure 6 shows the dramatic increase both in overall educational attainment and in specific types of degrees. In 2001, a mere 20% of teachers (only) had attained



at least an associate degree in early childhood/child development or had at least a bachelor's degree in another field and had taken an ECE course. By 2012, this percent had more than doubled to 50%. Similarly, there has been a dramatic increase in both associate and bachelor's degrees specifically in early childhood/child development. While 2001 showed only 10% of teachers (only) with degrees specifically in the field, 2012 reveals that a full 35% of teachers (only) have obtained degrees specifically in the profession.

Also increasing, though not as dramatically, are teachers (only) who have at least a bachelor's degree in a field other than early childhood/child development who have taken at least one early childhood education course. The percent of teachers (only) falling into this category increased from 10% in 2001 to 15% in 2012. The overall effect of all of these increases in education has resulted in a workforce that is better educated specifically in the field of early childhood education.

Education of Teachers and Assistant Teachers by Age Group Taught. Education levels of teachers differ as a group depending on the age of children in their care. Infant and/or toddler teachers (ages of children from birth to 36 months) tend to have lower levels of education than those who teach three year olds or older. Many teachers indicated that they taught multiple age groups spanning across infant/toddlers and preschoolers (three to five year olds). In these cases, education levels were counted in both age groups. Sixty-nine percent (69%) of those teachers who taught preschoolers had at least a two year degree compared to only 47% of those teachers who taught infants and/or toddlers. Forty-four percent (44%) of preschool teachers hold degrees in early childhood education/child development, compared to only 29% of infant and/or toddler teachers.

Similarly, for assistant teachers, 44% of those who taught preschoolers hold at least an AA degree compared to only 19% of infant and/or toddler teachers. In terms of field of study, 26% of preschool assistant teachers hold early childhood education/child development degrees compared with only 12% of infant and/or toddler assistant teachers.

Education by Regions. Across the state, education levels of directors and teachers vary by region (see Table 12). Region 14 has the lowest overall level of education for directors while Region 2 teachers/teacher assistants have the lowest level of education. However, Region 14 has a higher percent of directors with ECE degrees than the statewide average.

| | Directors | | | | Teachers/Tea | acher Assis | tants | |
|-----------|------------------------|-----------|------------------------------|----------------|------------------------|----------------|------------------------------|------------------|
| | Less than AA degree | AA degree | Greater than AA degree | *ECE Degree | Less than AA degree | AA de- gree | Greater than AA degree | *ECE De- gree |
| Region 1 | 20% | 35% | 46% | 45% | 41% | 47% | 13% | 52% |
| Region 2 | 15% | 39% | 46% | 52% | 64% | 26% | 10% | 28% |
| Region 3 | 9% | 48% | 44% | 67% | 53% | 35% | 13% | 30% |
| Region 4 | 22% | 32% | 46% | 56% | 47% | 33% | 21% | 31% |
| Region 5 | 27% | 27% | 47% | 55% | 53% | 32% | 16% | 33% |
| Region 6 | 25% | 26% | 50% | 40% | 48% | 24% | 29% | 32% |
| Region 7 | 16% | 22% | 62% | 38% | 47% | 31% | 22% | 39% |
| Region 8 | 26% | 20% | 55% | 41% | 49% | 25% | 26% | 26% |
| Region 9 | 23% | 19% | 59% | 37% | 48% | 32% | 20% | 39% |
| Region 10 | 9% | 38% | 52% | 63% | 53% | 30% | 17% | 33% |
| Region 11 | 30% | 25% | 45% | 27% | 51% | 21% | 29% | 29% |
| Region 12 | 18% | 22% | 60% | 42% | 46% | 17% | 38% | 26% |
| Region 13 | 13% | 34% | 53% | 47% | 55% | 24% | 21% | 30% |
| Region 14 | 34% | 39% | 27% | 47% | 32% | 54% | 15% | 64% |
| Statewide | 21% | 28% | 51% | 46% | 48% | 27% | 25% | 32% |

Higher levels of education can be seen in a number of regions. For directors, Regions 3 and 10 have over 90% of directors with a degree of some type. However, Region 7 has the highest percent of directors with at least a bachelor's degree at 62%. When looking specifically at ECE degrees, Region 3 has the highest percent of directors with this type of degree at 67%.

For teachers and assistant teachers, Region 14 leads the way with the most degreed at any level at 69%. Region 12, however, has the highest percent of bachelor degree or higher teachers/assistant teachers at 38%. Region 14 also has the highest percent of ECE degreed teachers/assistant teachers at 64%.

For many North Carolinians in rural communities, access to continuing education can be a barrier. At times, accessibility

can be limited by distance, i.e. the excessive commute to an on campus class. Other times, accessing higher education in rural areas can be limited by insufficient technological support or resources such as no internet availability or only dial up access.

Earnings of the Early Care and Education Workforce

Workforce earnings in North Carolina remain low (see Table 13). Family child care provider earnings (after expenses) reveal that minimum wage is not reached at the 10th or 50th percentile. In fact, family child care providers do not reach minimum wage until between the 60th and 65th percentiles indicating that just over a third earn at or above the

| Table 13 Self-Reported Earnings of the Early Care and Education Workforce | | | | | | | | |
|---|---|-----------|----------------------------|--------------------------------|--|--|--|--|
| | 2003 Wage in 2012 dollars ⁷ | 2012 Wage | Real Change (2003-2012) | Percent Change 2003-2012 | | | | |
| 90 th percentile wage: Family Child Care Provider | \$13.08 | \$12.49 | 95.50 | -4.50% | | | | |
| 50 th percentile wage: Family Child Care Provider | \$7.12 | \$6.03 | 84.7% | -15.30% | | | | |
| 10 th percentile wage: Family Child Care Provider | \$2.02 | \$0.30 | 14.86% | -85.14% | | | | |
| | 2011 Wage in 2012 dollars ⁸ | 2012 Wage | Real Change (2011-2012) | Percent Change 2011-2012 | | | | |
| 90 th percentile wage: Teacher & Asst Teacher | \$14.72 | \$14.63 | 99.39% | -0.61% | | | | |
| 50 th percentile wage: Teacher & Asst Teacher | \$10.01 | \$9.92 | 99.10% | -0.90% | | | | |
| 10 th percentile wage: Teacher & Asst Teacher | \$7.66 | \$7.55 | 98.56% | -1.44% | | | | |
| 90 th percentile wage: Director | \$26.03 | \$26.44 | 101.58% | 1.58% | | | | |
| 50 th percentile wage: Director | \$15.31 | \$15.86 | 103.59% | 3.59% | | | | |
| 10 th percentile wage: Director | \$10.21 | \$9.35 | 91.58% | -8.42% | | | | |

federally mandated minimum wage.

The median self-reported wage of child care teachers and assistants in North Carolina does not compare favorably to the starting wage of public school teachers in the state (\$17.91 per hour not including local supplements). Child care center directors' median self-reported wage barely competes (13% lower at the 50th percentile) with that of the public school



teachers despite the added responsibility of running a business. With such low wages, it is no wonder that early care and education teachers (9% of teachers and 12% of assistant teachers) said that they worked another paid job in addition to their job as a teacher. The median number of hours worked per week in these additional jobs was 10 for teachers and 15 for assistants.

In 2012, the median wage for directors was \$15.86. This compares to 2011 in which the median director compensation was \$15.31. In 2011, the median teacher and assistant teacher wage was \$10.01 per hour. In 2012, salaries increased to \$9.92 per hour. According to the Consumer Price Index, center directors' salaries at the 50th and 90th exceeded the inflation rates from 2011-2012. At the lower levels, however, director salaries did not keep up with inflation rates as they fell at the 10% percentile

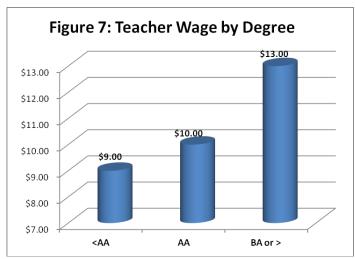
by over 8%. As shown in Table 12, directors' compensation has increased incrementally at the mid and upper levels.

Adjusted for CPI using wage calculator from the BLS Website, http://www.bls.gov/data/inflation_calculator.htm

⁸ Adjusted for CPI using wage calculator from the BLS Website, http://www.bls.gov/data/inflation_calculator.htm

For teachers and assistant teachers, the story is a bit different. For the highest paid teachers, those paid at the 90th percentile or \$14.63/hour, their wages did not keep up with inflation which would have suggested a pay rate of \$14.72/hour. At the 50th percentile, teacher wages of \$9.92/hour were below the expected compensation of \$10.01/hour. On the low end of the scale, teachers at the 10th percentile, making \$7.55/hour, fell even further behind in their buying power as their expected wage would have been \$7.66 per hour. In fact, the only salaries to keep up and exceed inflation were those mid and upper earning directors. Lower paid directors and all groups of teachers and assistant teachers saw their salaries fall behind inflation levels over the course of the year.

As would be expected, educational level plays a role in teacher and assistant teacher wages. Figure 7 shows, when all fields of degrees are combined, the more education teachers (only) receive, the higher their paycheck. Having an



associate degree raises the median paycheck by \$1.00/ hour. Jumping from an associate to a bachelor's degree or higher yields a median paycheck that is \$3.00/hour higher than the average paycheck for the lower degree.

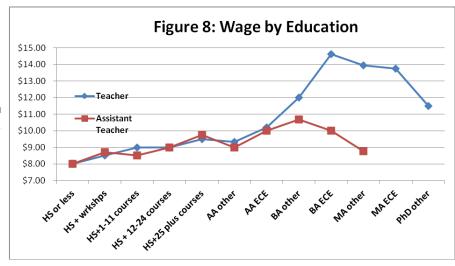
This same pattern holds true for assistant teachers as well. Those assistant teachers with less than an AA degree receive a median wage of, \$8.63 per hour. With an AA degree, this median wage is raised by \$1.37 an hour to \$10.00. Continuing on, assistant teacher who have a bachelor's or higher degree are given a \$.50 increase to \$10.50 per hour median wage.

For teachers, taking formal post-secondary coursework provides a financial reward as more classes are taken (see Figure 8). Teachers with a high school degree or less only average \$8.00 per hour. Those who

have also taken some workshops receive a median wage of \$8.50 per hour. Teachers who have taken post secondary coursework have a median salary of \$9.00/hour with one to 24 courses. Taking 25 or more courses earns a median \$9.50 per hour. For teachers, a degree specifically in early childhood/child development provides the biggest financial

gain at the associate and bachelor degree level. For an associate degree level teacher, one who has an early childhood degree makes on average, \$0.85 more per hour. For a bachelor level teacher, those with an early childhood degree make \$2.62 more per hour than their counterparts with a bachelor's degree in any other field.

Of note, for the average teacher, pursuing degrees beyond a bachelor's degree in early childhood does not advance wages. For teachers with a bachelor's degree in early childhood/child development, the median salary is \$14.62/hour as opposed to teachers with a master's

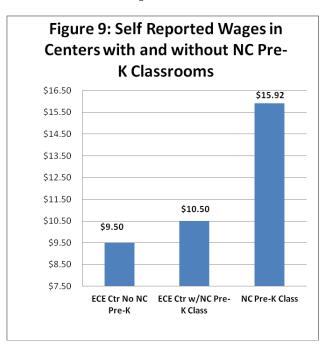


degree in early childhood/child development who average \$13.75/hour. In fields other than early childhood, a master's degree does pay dividends, however. Teachers with a bachelor's degree in a field other than early childhood/child development average \$12.00 per hour while teacher with a master's degree in a field other than early childhood earns a teacher \$13.95 per hour. Regardless, a bachelor's level teacher whose degree is in early childhood earns the highest salary of all categories at a median wage of \$14.62 per hour.

For assistant teachers, a similar trend holds true for increased education, though not as dramatically as with teachers. Assistant teachers with a high school degree or less earn a median wage of \$8.00 per hour. This increases to \$8.70 per hour with some additional workshop hours. For college coursework, assistant teachers with 1-11 courses make \$8.50 per hour which increases to \$9.00 per hour for 12 -24 courses and \$9.75 per hour for 25 or more courses. For assistant teachers with an AA degree in early childhood, their compensation increases to \$10.00, however, teachers with an AA in another field only make on average \$9.00 per hour.

Education is not as a great a predictor of salary for family child care providers. When grouped into just three categories, salary does tend to rise slightly for family child care providers, \$6.02 per hour for no degree, \$6.14 for an associate degree and \$6.33 per hour for a bachelor's degree or higher. However, when further broken down, no pattern emerges. For example, family child care providers with only a high school degree make a median wage of \$8.52 per hour. With workshops, however, the median is just \$3.87 per hour. Taking 1-11 classes yields a median wage of \$5.63 per hour, yet the salary for those with 12-24 classes drops to \$5.53 per hour. An associate degree in the early childhood field is only slightly higher at \$5.62 per hour, but an associate in another field shows a \$7.03 per hour median wage. For those family child care providers with a bachelor's degree, the median salary with an early childhood degree is \$6.87 per hour, but with any other bachelor's degree the median wage is \$6.33 per hour.

NC Pre-K is a significant factor in teacher (only) pay. As Figure 9 outlines, for teachers, being in a center with a NC Pre-K classroom and/or teaching in an NC Pre-K classroom increases your opportunity for a larger paycheck. State policy





mandates higher salaries for those directly in NC Pre-K classrooms, so a higher salary specifically for NC Pre-K classroom teachers is expected. However, there is no directive for those in non NC Pre-K classrooms operated by centers that also have NC Pre-K classrooms. However, data indicate that there has been a positive impact or "spillover effect" for these teachers as well. As Figure 9 shows, teachers who work in early care and education programs that have an NC Pre-K classroom, but who themselves do not work in that classroom, make \$1.00 more per hour than teachers in programs without such a classroom. For those teachers working in NC Pre-K classrooms as well, their salary is \$5.42 above those teachers who work in centers with an NC Pre-K classroom but who themselves do not work in those classrooms.

Earnings of Teachers and Assistant Teachers by Age Group Taught. For teachers and lead teachers, those who teach infants and/or toddlers had a median salary of \$9.50 per hour. Those teachers who taught preschool children fared better with a median salary of \$11.00 per hour. The same holds true for assistant teachers of infants and/or toddlers who make only \$8.50/hour compared to their preschool counterparts making \$9.50/hour. (Many teachers and assistant teachers indicated that they taught multiple age groups spanning across infant and/or toddlers and preschoolers. In

these cases, earnings were counted in both age groups.)

Earnings by Region. As with most professions, earnings vary based on geographic location. Table 14 breaks down the median earning of directors, teachers, teacher assistants and family child care providers by region. Regions 1 and 2 have

the lowest paid directors at a median salary of \$12.50/hour. Highest paid directors can be found in Region 12 at a median wage of \$17.79/hour. (Please see the Appendix B for detailed information about salary imputations in small regions.)

Lowest paid teachers can be found in Region 3 at a median wage of \$8.75 per hour. Regions 2 and 5 pay their assistant teachers less than other regions at \$8.00 per hour.

Teachers and assistant teachers make more on average in Region 12 than others across the state. Teachers in this region make \$11.60 per hour while assistant teachers' median wage is \$10.31 per hour.

When compared to median starting teachers and highest paid teachers reported by directors, all regions were within the range expected. For assistant teachers, however, a discrepancy can be found in Regions 6, 13 and 14. Region 6 directors reported a starting assistant

| Table 14 Director, Teacher and Teacher Assistant Earnings by Region | | | | | | | | |
|---|----------|---------|----------------------|--------------|--|--|--|--|
| | Director | Teacher | Teacher Assistant | FCC Provider | | | | |
| Region 1 | \$12.50 | \$10.00 | \$8.98 | \$5.55 | | | | |
| Region 2 | \$12.50 | \$9.50 | \$8.00 | \$3.51 | | | | |
| Region 3 | \$14.00 | \$8.75 | \$8.65 | \$5.01 | | | | |
| Region 4 | \$16.34 | \$10.50 | \$8.09 | \$5.65 | | | | |
| Region 5 | \$14.42 | \$9.00 | \$8.00 | \$4.56 | | | | |
| Region 6 | \$15.66 | \$10.20 | \$10.00 | \$6.82 | | | | |
| Region 7 | \$16.30 | \$9.25 | \$9.00 | \$6.37 | | | | |
| Region 8 | \$15.38 | \$11.00 | \$9.00 | \$6.94 | | | | |
| Region 9 | \$17.02 | \$9.85 | \$8.50 | \$6.34 | | | | |
| Region 10 | \$15.84 | \$9.71 | \$8.50 | \$6.48 | | | | |
| Region 11 | \$17.31 | \$10.00 | \$9.55 | \$5.62 | | | | |
| Region 12 | \$17.79 | \$11.60 | \$10.31 | \$8.56 | | | | |
| Region 13 | \$15.63 | \$9.00 | \$9.00 | \$4.69 | | | | |
| Region 14 | \$12.82 | \$9.00 | \$8.64 | \$3.90 | | | | |
| Statewide | \$15.86 | \$10.00 | \$9.00 | \$6.03 | | | | |

teacher salary of \$8.00 per hour with the highest paid assistant teachers earning a median salary of \$9.75 per hour. Assistant teachers in this region, however, reported that they earn a median wage of \$10.00 per hour. Region 13 shows the discrepancy with directors reporting an average range of \$8.00/hour to \$8.56/hour for assistant teachers and assistant teachers reporting a median salary of \$9.00/hour. For Region 14, directors reported a median range of \$8.00 to \$8.60 per hour with assistant teachers stating that they make a median salary of \$8.64 per hour.

Because family child care providers work long hours each week (median of 52 hours each week) often with little or no help, and because of the expenses inherent to running a child care business, family child care providers often make below minimum wage when income, expenses and hours open are considered. In fact, only Region 12 has family child care providers who reported median earnings above minimum wage at \$8.56 per hour. This figure is in contrast to Region 2 where family child care providers make just \$3.51 per hour.

Economic Well Being of the Early Care and Education Workforce. Many people working in the early childhood field face severe economic challenges that affect their families and them personally. Overall, the child care workforce is at a significant disadvantage economically. Strictly in terms of household income alone, child care providers and their families fall well short of other North Carolinians as a whole. From the U.S. Census Bureau's Quick Facts, the median North Carolina household income is \$45,570. For over 77% of child care teachers and assistant teachers, their household income falls below this amount. For 14% of early care and education teachers and assistant teachers, in the last three years they have had to adjust to the loss of income due to losing a job. Only half (50%) received unemployment compensation.

But household earnings are not the only indicator of overall economic well being. Over a third (34%) of the teachers and assistants said that they had no health insurance coverage from any source. This is an increase from 2011 when 32% of teachers and assistant teachers had no health insurance from any source. Additionally, 41% of teachers and assistants had received some type of public assistance (e.g., Medicaid, SNAP (food stamps), TANF) in the last three years. This is an

⁹ http://quickfacts.census.gov/qfd/states/37000.html

increase compared to 2011, then 40% of teachers and assistant teachers received one or more forms of public assistance in the previous three years.

| Table 15 Individual Economic Well Being of Child Care Providers | | | | | | | | |
|---|--------------|-----------------------|--------------------------------|--|--|--|--|--|
| | Teachers | Assistant Teachers | Family Child Care Providers | | | | | |
| Median Hourly Earnings | \$10.00/hour | \$9.00/hour | \$6.03/hour | | | | | |
| Median Household Income | \$25K-\$30K | \$20K-\$25K | \$35K-\$40K | | | | | |
| Single Parent with Child 0-18 | 17% | 20% | 14% | | | | | |
| No Health Insurance | 34% | 34% | 44% | | | | | |
| Used Public Assistance in Past 3 Years | 41% | 45% | 24% | | | | | |
| Work a 2 nd Job | 9% | 12% | 12% | | | | | |

Table 15 breaks down the hard financial burden that teachers, assistant teachers and family child care providers must battle each day. Given the bleak economic climate for teachers and assistant teachers in North Carolina. center directors often find it difficult to attract and retain qualified staff. As expected, assistant teachers face more severe economic challenges than teachers. Earnings for assistant teachers remains below that of teachers as

are overall household earnings. However, since basic benefits are provided uniformly across positions within programs, assistant teachers are just as likely to have health insurance as teachers. Assistant teachers are more likely to be single parents, more likely to have used public assistance in the past three years and more likely than teachers to have to work a second job to make ends meet. Though family child care providers tend to make less earnings, overall, their economic well being exceeds that of teachers and assistant teachers. Their household income is higher, there are fewer single parents and fewer have used public assistance in the past 3 years. Family child care providers are, however, less likely to have health insurance than either teachers or assistant teachers.

Professional Support for the Early Care and Education Workforce

Early childhood research has shown that higher education and compensation of early care and education providers can lead to positive outcomes for children. Programs such as the T.E.A.C.H. Early Childhood® Project and salary supplements have addressed the educational and financial needs of early care and education providers while lowering staff turnover. At the program level, child care centers offer staff opportunities to develop their teaching skills and professionalism through coursework and by creating a supportive work environment. The workforce survey included a number of questions on these professional support topics.

The T.E.A.C.H. Early Childhood® Project. According to center directors, 62% of centers in North Carolina had at least one staff member that had ever received a T.E.A.C.H. scholarship. This is an increase from the 55% reported in 2011. On the teacher surveys, a proportion of teachers and assistant teachers

(29%) said that they had received a T.E.A.C.H. scholarship. In 2011, 25% of teachers and assistant teachers had received such a scholarship. Among respondents, 99% of center directors and 96% of teachers and assistants had heard of the T.E.A.C.H. Early Childhood® Project.

Data from the T.E.A.C.H. Early Childhood® Project indicate that the Project is working to increase the education levels of child care providers. Evaluation data show that 53% of T.E.A.C.H. Early Childhood® participants were not working on a degree before they learned about the Project. This inaction was due, not to lack of desire, but for 83% of participants, because they could not afford the cost of higher education. For Project participants, nearly 2/3 indicated that they are more satisfied with their jobs (65%). Similarly, close to 2/3 said that participation in the T.E.A.C.H. Early Childhood® Project has made them more willing to stay with their current early care and education program (62%).

In any given year, nearly 50% of T.E.A.C.H. scholarship recipients are people of color. The widespread availability of T.E.A.C.H. scholarships has helped raise the qualifications of the workforce and has potentially



T.E.A.C.H. Early Childhood® data received from participant evaluation received in 2011.

contributed to the increasing percentage of people of color in center leadership positions.

Salary Supplements. Among North Carolina teachers and assistant teachers, 43% received a salary supplement funded by Smart Start and the Division of Child Development and Early Education (up from 35% in 2011). According to Child Care WAGE\$ information, the average mean six month supplement for all participants in 2011 was \$876. Ninety-six percent (96%) of participants in the program indicate that WAGE\$ encourages them to stay in their current program. Further, 95% say that the program helps them feel more satisfied with their job and 97% say that WAGE\$ supplements help ease financial stress.

Child Care WAGE\$ not only provides benefits for participants. Directors also realize the benefits with 70% indicating that the program increases morale and 67% specifying that lower turnover is a benefit. Finally, 45% of directors cite Child Care WAGE\$ as a method to attract more qualified staff to their center. Salary supplement amounts were not included in the calculation of individual respondent hourly wages.

Other Center-Provided Support. Child care centers can support the professional development of staff without

| Table 16 | | | | | | |
|---|------|------|--|--|--|--|
| Professional Support Benefits in Child Care Centers | | | | | | |
| | 2011 | 2012 | | | | |
| Orientation | 90% | 94% | | | | |
| Written Job Description | 91% | 96% | | | | |
| Written Personnel Policies | 91% | 96% | | | | |
| Paid Education/Training | 76% | 84% | | | | |
| Paid Breaks | 56% | 60% | | | | |
| Time Off for Training | 55% | 64% | | | | |
| Planning/Preparation Time | 67% | 73% | | | | |

creating a significant financial burden on their programs. Seven key types of professional support that centers can provide staff are an orientation, written job descriptions, written personnel policies, paid education and training expenses, paid breaks, compensatory time for training and paid preparation or planning time (see Table 16).

Over the course of a year, those programs providing these low cost benefits have increased. Of note, nearly all programs (96%) offer written job descriptions and written personnel policies. Far fewer, 60% provide paid breaks for their teaching staff. Among the responding centers, 81% offered at least five of these types of support and 8% offered three or fewer. In 2011, only 70% offered at least five of these types of supports

and 16% offered three or fewer. Providing a professional work environment may be a low-cost means for centers to prevent staff turnover.

Experience and Turnover of the Child Care Workforce

Young children need experienced, welleducated teachers with whom they can form close attachments over time. These attributes are even more important for teachers of infants. and toddlers. North Carolina has a combination of seasoned child care professionals who have remained with their current programs for years and of less-experienced providers who have either just begun in the field or in a new child care program (see Table 17). Across the state, median experience in the child care field was 17.0 years for directors (who began working in the field at an average age of 27) 10.0 years for teachers and 7.1 years for assistant teachers. For directors and teachers, years of experience in the child care field did not change between 2011 and 2012. Teacher assistants responded with

| Table 17 Child Care Workforce Experience | | |
|---|------|------|
| | 2011 | 2012 |
| Teachers Years in Current Center | 3.6 | 3.5 |
| Teachers < One Year in Current Center | 19% | 19% |
| Teachers Years in Child Care Field | 10.0 | 10.0 |
| | | |
| Assistant Teachers Years in Current Center | 2.0 | 2.1 |
| Assistant Teachers < One Year in Current Center | 31% | 30% |
| Assistant Teachers Years in Child Care Field | 6.0 | 7.1 |
| | | |
| Directors Years as Director in Current Center | 6.0 | 7.0 |
| Directors Years in Child Care Field | 17.0 | 17.0 |
| | | |
| | 2003 | 2012 |
| Family Child Care Providers as FCC Provider | 5.4 | 10.0 |
| Family Child Care Providers in Child Care Field | | 16.0 |

¹¹ Child Care WAGE\$® data received from financial payments made to participants in 2011.

¹² Child Care WAGE\$® data from participant and director evaluations received in 2011.

6.0 years experience in the field in 2011, an indication that assistant teachers were retained in the field over the last year. Family child care providers reported being in business for a median 10.0 years. This is nearly twice as long as in 2003 when this group reported 5.4 years in business.

The current survey included two measures of turnover: (1) for center-based teacher turnover, the percentage of child care teachers and assistant teachers who left their centers during the previous year and (2) for individual directors,

| Table 18 Child Care Workforce Turnover | | |
|--|------|------|
| | 2011 | 2012 |
| Full-Time Teacher and Assistant Teacher Turnover | 18% | 19% |
| Full-Time Teacher Turnover | 19% | 21% |
| Full-Time Assistant Teacher Turnover | 16% | 14% |
| Part-Time Teacher and Assistant Teacher Turnover | 22% | 21% |
| Part-Time Teacher Turnover | 20% | 24% |
| Part-Time Assistant Teacher Turnover | 24% | 17% |
| Teachers Leaving the Field in 3 Years | 21% | 20% |
| Infant/Toddler Teachers Leaving Field in 3 Years | 23% | 24% |
| Preschool Teachers Leaving Field in 3 Years | 18% | 16% |
| Assistant Teachers Leaving the Field in 3 Years | 24% | 22% |
| Directors Leaving the Field in 3 Years | 11% | 13% |
| | 2003 | 2012 |
| Family Child Care Providers Leaving the Field in 3 Years | 13% | 18% |

teachers, assistant teachers and family child care providers the percentage of workers who are planning to leave the child care field in the next 3 years (see Table 18). As a proportion of all full-time teachers and assistants, 19% left their centers during the previous 12 months. Turnover rates within centers ranged from 0% to 300% of full-time staff. Thirty-nine percent (39%) of centers reported that they had no fulltime staff turnover during the previous year while 3% of centers had turnover at or above 100% of current full-time staff. In 2011, 18% of full-time teachers and assistants left their centers during the previous 12 months. The full-time teacher annual turnover rate of 21% is similar to the 19% of full time teachers who have been in their programs one year or less as would be expected.

Twenty percent (20%) of teachers said that they plan to leave the field in the next three years. For assistant teacher, this rate was higher at 22%. Directors, however, were less likely to say that they plan on leaving the field in the next three years at 13%. Finally, 18% of family child care providers

said that they plan to leave the field in the next three years.

Experience and Turnover by Age Group Taught. Not surprisingly, when controlling for age group taught, preschool

teachers and assistant teachers show more experience both in their centers and in the field as a whole compared with infant and/or toddler teachers. Preschool teachers average a median 3.5 years working in their centers and 11.0 years experience in the early care and education field overall. Infant and/or toddler teachers have been in their programs just 3.4 years and in the field as a whole for 9.0 years on average.

When asked if they would be leaving the field within 3 years, just 16% of preschool teachers answered in the affirmative. For infant and/or toddler teachers, 24% responded that they may not be in the field in three years. Our youngest children who need to be able to count on the adults in their lives are expected to lose their teachers at a rate of one and one half times the rate of teachers of older preschool children.

For assistant teachers, median years working in their current center for preschool teachers was 2.9 and 8.0 years in the child care field. Infant and/or toddler assistant teachers, however, showed just 1.4 years in their current program and 5.7 years in the field as a whole. (Many teachers and assistant teachers indicated that they taught multiple age groups spanning across



infant and/or toddlers and preschoolers. In these cases, experience and turnover were counted in both age groups.)

Experience in the ECE Field by Region. The amount of experience both within their current center or home and within the field as a whole varies across regions in our state (see Table 19). Teacher time in their center ranges from 2.5

| Table 19 Years of Exp | erience | by Reg | ion | | | | | | | | | | | | |
|--------------------------|---------|--------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | Region | legions | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | NC |
| Teachers- Center | 2.6 | 4.3 | 2.9 | 4.2 | 2.6 | 3.8 | 3.0 | 2.5 | 3.8 | 4.5 | 4.0 | 4.0 | 3.3 | 5.3 | 3.5 |
| Teachers- Field | 11.3 | 15.0 | 9.0 | 9.0 | 8.1 | 13.0 | 9.0 | 9.0 | 8.0 | 11.2 | 10.0 | 10.1 | 9.0 | 15.3 | 10.0 |
| | | | | | | | | | | | | | | | |
| Assistants- Center | 5.0 | 1.5 | 1.6 | 2.5 | 3.3 | 2.3 | 2.3 | 1.0 | 3.0 | 3.4 | 2.2 | 2.0 | 2.0 | 4.0 | 2.1 |
| Assistants- Field | 14.0 | 0.5 | 8.0 | 6.0 | 9.9 | 8.0 | 10.0 | 5.2 | 8.8 | 6.5 | 5.8 | 6.0 | 5.0 | 10.0 | 7.1 |
| | | | | | | | | | | | | | | | |
| Director- Center | 8.0 | 5.0 | 5.0 | 8.0 | 7.5 | 7.0 | 10.3 | 8.0 | 6.0 | 7.1 | 6.0 | 7.4 | 5.0 | 11.6 | 7.0 |
| Director- Field | 16.0 | 20.0 | 18.0 | 15.1 | 16.0 | 17.0 | 19.0 | 19.0 | 15.0 | 20.0 | 15.0 | 16.3 | 15.0 | 21.0 | 17.0 |
| | | | | | | | | | | | | | | | |
| FCC-Home | 8.5 | 8.0 | 11.0 | 6.0 | 11.0 | 9.0 | 8.0 | 12.0 | 7.0 | 15.7 | 11.0 | 12.0 | 12.2 | 10.0 | 10.0 |
| FCC- Field | 21.0 | 19.3 | 20.0 | 15.0 | 16.0 | 15.0 | 15.0 | 20.0 | 15.0 | 20.0 | 16.0 | 17.0 | 14.0 | 11.0 | 16.0 |

years in Region 8 to 5.3 years in Region 14 with the statewide median of 3.5 years. In terms of overall experience in the field, Region 9 has a low of 8.0 years for teachers and Region 14 has a high of 15.3 years (10.0 statewide average.) For assistant teachers, the statewide average of 2.1 years in their center compares to a low in Region 8 of right at one year to a high in Region 1 of 5.0 years. Experience in the field as a whole is greater for assistant teachers ranging from 0.5 years (Region 2) to 14.0 years (Region 1). The statewide average is 7.1 years for this population.

Directors, as would be expected, tend to have more years of experience both within their centers and in the ECE field. Several regions have directors with a low median average of 5.0 years in their centers (Regions 2, 3, and 13). Region 14 has the longest staying directors in their centers at over 11 years. The statewide median for directors is 7.0. Within the



field, directors average 17.0 years statewide. In Regions 9, 11 and 13 they average just 15.0 years contrasting with Region 14 at 21.0 years.

Family child care providers have been in business for an average of 10.0 years statewide. Home providers in Region 4 have owned their businesses the least amount of time at 6.0 years compared to Region 13 where providers average 12.2 years. In terms of overall experience in the field, Region 14 has a low of 11.0 years for family child care providers and

Region 1 has a high of 21.0 years (16.0 statewide average.)

Workforce Retention. Survey respondents who indicated that they planned to leave the field within 3 years were then asked what would make them stay in the field. Directors and teachers provided some similar and some different

| Table 20 Motivators to Remaining in the ECE Field | | | | | | | | |
|---|-----------|----------|-----------------------|--|--|--|--|--|
| | Directors | Teachers | Teacher Assistants | | | | | |
| Better pay | 30% | 79% | 73% | | | | | |
| Better benefits | 24% | 59% | 44% | | | | | |
| Fewer money problems for center | 30% | | | | | | | |
| Opportunities for professional growth | | 31% | 25% | | | | | |
| Respect for profession | | 36% | 24% | | | | | |

motivators stemming from the unique roles and responsibilities of each group (see Table 20). Family child care providers offered differing motivators as well

Higher earnings was listed by the largest group of directors (30%) as a motivator to stay in the field. Likewise, fewer problems with money for the center was listed by 30% of directors as a way to keep them in the field. Following this, 24% of directors stated that better benefits would keep them in the field. Of note, 47% of directors

leaving the field stated that nothing would keep them in the field because they are planning to retire.

Though some motivators are similar for teachers, others differ. Higher pay was listed as the top motivator for keeping teachers in the field with 79% listing this option. Better benefits were listed by 59% of teachers as important to their remaining in the early care and education field. The third top motivator for keeping teachers in the field was more respect for the profession (36%).

The motivators listed most commonly by teacher assistants largely mirrored teacher responses with only the percentages and the third top motivator changing. Seventy-three percent (73%) of teacher assistants listed better pay as a way to make them stay in the field. Similarly, 44% of teacher assistants listed better benefits as a motivator. Finally, 25% listed more opportunities for professional growth as a motivator to remain an early care and education professional.

Family child care providers who responded that they plan to leave the field in the next three years listed ability to earn more money as the number one motivator to staying in the field (42%). A distant second was the ability to more easily



Conclusion



get a substitute (19%). Finally, family child care providers listed having more time off as a third motivator to staying in the field (17%).

The child care workforce in North Carolina has experienced improvements in the salaries of the highest paid assistant teachers, teachers and directors since 2011. Similarly, more programs are offering the staff reduced child care fees and parental leave. Since 2011, there are a higher percentage of directors with associate degrees and teachers with either a two or four year degree. Likewise, family child care providers have increased their education levels since 2003. North Carolina has remained stagnant or suffered losses in the salaries of the lowest paid assistant teachers, teachers and directors since last year. Family child care provider salaries have also seen a decrease since 2003. A lower percentage of teacher assistants have degrees in 2012 than in 2011, however, more of these professionals indicated that they are taking classes to improve their education levels. Center based staff have been in their programs about the same amount of time as they were in 2011. The constant challenge of supporting workforce professional development while raising wages and lowering turnover is clearly at play across North Carolina. State policymakers, funders and workforce initiatives can take some pride in the positive changes they have helped forge for the workforce including the NC Pre-K program which continues to drive increased education and compensation for teachers of young children. Hopefully North Carolina can continue to build on these successes as the state continues working on the perennial challenges facing its early care and education programs and providers.

The past several years have shown amazing progress for the early care and education community in North Carolina. Changes in 2012 continue to show progress for the profession. With a significant percent of center directors holding a two year degree or higher (79%) has come a modest bump in salary, though clearly the increase continues to fall far short of public school teacher salaries. Similarly, teachers and family child care providers have also increased their education levels (58% of teachers and 41% of family child care providers with two year degrees or higher), though not with the same increase in compensation. Regardless, early care and education providers are feeling the rewards of the field and remaining in their chosen profession (17 years for directors, 10.0 years for teachers, 7.1 years for assistant teachers and 16 years for family child care providers).

Perhaps one reason that the turnover has dropped for the early care and education providers in North Carolina is the usage of community supports. Forty-three percent (43%) of center teachers and assistant teachers and the same percent of family child care providers receive a salary supplement funded by Smart Start. Likewise, a over a quarter of teachers and assistant teachers (29%) and 35% of family child care providers take advantage of T.E.A.C.H. Early Childhood® scholarships. Both of these projects specifically address the issue of high turnover. Providers who take advantage of these projects have shown an increase in their commitment to remaining in their programs for a period of time.

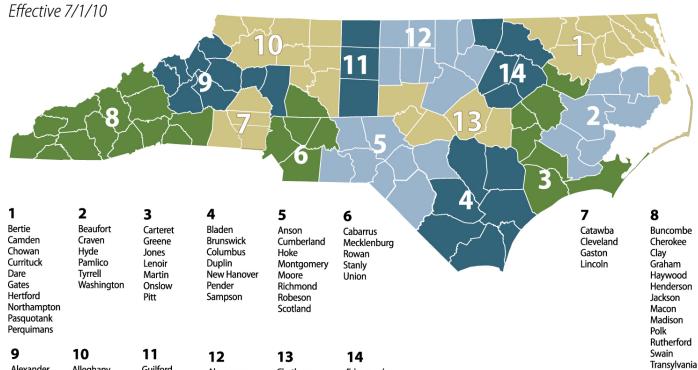
Despite these significant gains for the workforce, some areas continue to lag behind. The lack of health insurance forecasts the potential for significant financial difficulties for many North Carolina providers and their families. (Thirtyfour percent (34%) of teachers, 34% of assistant teachers and 44% of family child care providers have no insurance from any source.) Those providers working in single site for profit centers and non-profit programs sponsored by faith communities fair the worst in this regard with only 22% and 41% respectively providing any support for health insurance for their employees. Likewise, use of public assistance at some point over the past three years(41% of teachers, 45% of teacher assistants and 24% of family child care providers) demonstrates that, while wages have grown, the net benefits of these increases are not enough for families to be self-sufficient.

Clearly, the strategies employed by North Carolina to focus on the workforce have been successful. Providers are increasing their education and remaining in the field for longer. The decision to embed NC Pre-K in private child care settings has played a pivotal role in driving the increase in wages, benefits and education levels of early care and education providers. Ultimately, the children of North Carolina are reaping the benefits of the battles fought and won by the child care advocates and funders of the counties and the state. However, recent funding cuts to programs supporting the early care and education workforce and a gradually improving economy represent a recipe for disaster. As higher paying jobs become available in our communities, a better educated early care and education workforce may be enticed away to careers with higher pay and better benefits leaving North Carolina's youngest citizens to begin their lives at a disadvantage.

This year we saw turnover rates increase slightly over 2011, perhaps indicating an upward trend. With teacher and assistant teacher wages not keeping pace with inflation and declining unemployment rates, the rate at which child care providers leave the field may be something to closely watch over the next couple of years.

Appendices

North Carolina Regional CCR&R System - 14 Region System



Alexander Avery Burke Caldwell Iredell McDowell Mitchell Watauga Yancey

Alleghany Ashe Davidson Davie Forsyth Stokes Surry Wilkes Yadkin

Guilford Randolph Rockingham Alamance Caswell Durham Franklin Granville Orange Person Vance Wake

Chatham Harnett Johnston Lee Wayne

Edgecombe Halifax Nash Warren Wilson

Regional Lead Agencies

Region 1: Albemarle Smart Start Partnership, Inc. (Pasquotank County)

Region 2: Craven Smart Start, Inc.

Region 3: Martin-Pitt Partnership for Children, Inc. Southeastern CCR&R (Columbus County) Region 4: Cumberland County Partnership for Children Region 5: Child Care Resources Inc. (Mecklenburg County) Region 6: Region 7: Child Care Connections of Cleveland County

Region 8: Southwestern Child Development Commission, (Jackson County)

Iredell County Partnership for Young Children Region 10: Work Family Resource Center, Inc. (Forsyth County) Region 11: Guilford Child Development (Guilford County) Region 12: Child Care Services Association (Orange County) Region 13: Child Care Networks, Inc. (Chatham County)

Region 14: Down East Partnership for Children (Edgecombe County)

Appendix A

Appendix B

Survey Methods and Response Rates

Survey instruments. The written and online versions of the questionnaires used in this survey were based on the forms for child care center directors, teachers and family child care providers previously created and used by the authors of this study. The questionnaires were modified to include currently relevant and time-sensitive items. There were 3 separate instruments: (1) a director's survey which was intended for directors of child care programs; (2) a teacher survey which was provided to teachers and teachers' assistants in those child care programs whose directors participated in the study; and (3) a family child care provider survey, which contained many of the same items in the other two surveys.

Sampling Strategy. Child care programs selected for survey participation were drawn from May 2012 regulatory data of the North Carolina Division of Child Development and Early Education. At that time, several types of programs were excluded from the sampling frame that was constructed for the study. Programs that served only school-age children or that provided care only during the summer months were excluded. It should be noted that unlicensed, public pre-k programs were not included as part of this study.

The total population of programs was divided into two groups of licensees: centers and homes, based on their designation as such in the file. Each group was then sorted according to its location in each of the 14 multi-county Child Care Resource and Referral (CCR&R) Regions. Within the center group, each region was further divided according to its star rating (five categories) and size of program as measured by numbers of children aged 5 and under enrolled in the program. (5 categories). For homes, the regions were further divided only into star rating categories since the size of family child care homes is fairly consistent. Each program within each cell was then assigned a random number and sorted by that number. Within each region 25% of each region's centers and 25% of each region's homes were randomly selected to mirror the star ratings and size categories (for centers only) of the overall population of child care programs in the region in This process yielded a total of 733 homes and 1010 centers to be surveyed. The goal was to obtain data from 70% of the homes and 70% of the centers.

Survey Implementation Processes. To begin the study, all homes and centers with a valid email address on file with the Division of Child Development and Early Education were sent an online survey uniquely linked to their email address. Several reminder emails were sent and phone calls were made to remind family child care providers and center directors to check their emails and respond to the surveys. For programs with no email addresses and for those programs who failed to respond after numerous attempts through email, phone calls were made in an attempt to conduct the surveys over the phone.

Following numerous phone attempts, non-responding programs were sent a survey in the mail. Center packets included a cover letter, questionnaire and postage-paid return envelope for the director; cover letter, questionnaire and postage-paid return envelope for each teacher/assistant teacher, and raffle tickets and small thank you gifts for the director and teachers. Family child care provider packets contained a cover letter, questionnaire, postage-paid return envelope, raffle ticket and a small thank you gift.

For programs in which the director had completed the survey either online or by phone, packets were sent that included a cover letter for the director and a small thank you gift. Also included were enough surveys for each teacher and assistant teacher, postage paid return envelopes, raffle tickets and small gifts.

To ensure a high survey response rate, repeated email reminders, phone calls and mailings were made to child care centers and homes to remind and assist participants in responding. When requested, mailings were faxed to programs. Staff also asked each participating program to confirm the number of full-and part-time teachers and assistant teachers who were included in ratios for children birth to five. This number was used to estimate the teachers' participation rate.

Data for this family child care provider report were collected through a survey of a sample of family child care providers conducted from September 2012 to January 2013. Following four months of repeated and varied attempts to communicate with and secure responses from family child care providers, some programs were replaced on the list of targeted selections to ensure that at least 17% of the overall population of family child care providers were represented.

The 81 programs were replaced with newly targeted ones for various reasons including closure, inability to reach an informant and in a few cases explicit refusal to participate in the survey.

Survey Response Results. Surveys of samples of early childhood program directors and of teachers working in those programs were conducted over the period from September 2012 to February 2013. Useable surveys were obtained from 737 directors, which constitutes 73% of a stratified random sample (n=1010) of all directors of licensed child care programs in North Carolina. This constitutes about 17% of the population of all directors in the state.

Participating directors distributed surveys to their teaching staff and useable surveys were returned by 2,608 teaching staff out of an estimated 6,321 (41%), which is somewhat below the 50% target due in part to a significantly reduced timeline for collecting surveys. The denominator of 6,321 was based on directors' reports of their own eligible teaching staff (i.e., teacher/assistant teacher) and was arrived at by aggregating counts on the director surveys from participating centers. Although the eligible statewide population is not currently known, an estimate of that population in centers was calculated by two different methods using director survey data and data from the sampling frame, to arrive at a teaching staff population size of approximately 32,500, with a regional distribution expected to mirror the percentages reflected in the regional distribution of teachers on the sampling frame.

Centers also varied in the extent to which their teaching staffs responded to the survey. When aggregate teaching staff participation rates were calculated separately by region, by center size, and by star ratings, no rates in these various cells fell below 20%, and many were above 80%. When teaching staff participation rates were calculated at the center level, it was found that 30 % percent of centers whose directors had responded yielded no teaching staff responses. On the other hand, 48% of the center directors had more than half of their teaching staff represented in their teacher surveys, and 23% of the participating centers had at least 80% of their own teaching staff represented by survey responses. Not surprisingly, teacher participation rates are related to the size and star rating of the center, and this variation in response level was taken into account in establishing the teacher level analysis weights described below.

Numerous attempts were made to survey a random sample of family care homes (n=733). Useable surveys were obtained from 522 programs out of the 814 of the original and substituted homes targeted. This constitutes at least a 64% response rate from those attempted and reflects about 18% of the estimated overall family child care provider population (N=2,900) in North Carolina.

Survey Weighting Strategies. Program and teacher level data have been weighted to reflect the statewide populations of centers and teaching staff respectively, adjusting for known individual, program and community characteristics associated with response bias. Percentages and other values reported in tables and graphs incorporate these sampling weights, permitting extrapolation to the population of centers (N=4,034) and an estimated teaching staff population of approximately 32,500 and to the population of all family child care providers (N=2,900).

In general, sampling weights reflected the inverse of the probability of selection and response for each of the strata used in the sampling design described above. First stage corrections were made for size and star rating factors in the director sample and for star rating in the family child care provider sample. After this process was completed each of these samples was rescaled to reflect the geographic distribution of cases in the 14 Child Care Resource and Referral regions. A similar process was employed for the first stage of teaching staff sample which was again adjusted to reflect the within center response level, and geographic rescaling was performed to match the percentage distribution of the aggregate numbers of teaching staff as provided on the sampling frame across the 14 Child Care Resource and Referral regions. Samples were then tested to assure that the totals in the up-weighted datasets summed to the estimated statewide totals and reasonably reflected regional percentage estimates.

As part of the data analysis process, cases in each of the three datasets were weighted in a way as to create more unbiased population estimates. Weighting schemes incorporated variables that affected probabilities of selection of a case as well as the other variables used in sample stratification which were empirically tested and found to display a statistically significant association with the actual probability of survey response for either a director, family child care provider, or teaching staff member. It should be noted that the weighting process used in the report quite effectively adjusts for biases in estimates of measures of central tendency, e.g., means and medians, that might be due to differential response. However, the report cannot make any meaningful quantitative statements about the precision of those estimates, i.e., such measures of dispersion as variance, standard error, standard deviation. This situation is not problematic for this summary report, because no confidence intervals were reported, nor were formal tests of statistical

significance conducted or reported. However, with further analysis such estimates could be calculated from the datasets because the appropriate weights have been calculated. Further details are available upon request.

Starting/Highest Paid Teacher and Director Salary Calculations. Regional estimates of wage progression of teachers and assistant teachers were difficult to construct because initial and peak wages were often missing in the directors' surveys. Fortunately, wage data reported in the teacher survey was available to fill in some of the gaps. If initial wages were missing from the director's survey, available corresponding data from teachers' surveys were used for initial wages, if the teacher or assistant teacher had been employed in the center for two years or less. Similarly, if the highest wage for a teacher or assistant was missing from the director survey, the highest actually wage reported by any of the appropriate staff who had been working at the center for 10 or more years. Through this process, reasonably sound estimates of the wage progression could be constructed for 12 of the 14 regions and the median wage estimates displayed some upward progression between initial and highest wage and were reasonably close to the corresponding estimates in the 2011 survey. Some of the estimates in two of the smaller regions, Regions 2 and 14, should be interpreted with caution, because either the number of actual cases upon which the estimates were made was fewer than 20 cases, or the item response rate was below 60%

For director salaries, because in almost 40% of the cases, the value of median hourly wage of the director was missing in the original directors' survey, this quantity was calculated using the multiple imputation procedure in SPSS. A regression equation was used to identify correlates of known values of the hourly wage. These variables were then employed in the multiple imputation procedure. This process was replicated five times and the median of those five replications was used as the estimate. The following dichotomous or continuous variables were included in the equation: program size, quality rating, auspices, and pre-K program participation, urban location, length of tenure, education and reported family income of the director, as well as the starting wages of teachers in the program.

In various places within the report, organizational categories were collapsed for simplification. A three-fold categorization of organizational structure was employed in several analyses of the survey data: For-profit centers, non profit centers and public sponsored programs. NC Pre-K programs (formerly More at Four) are represented among all three organizational structures. However, it is important to note that public pre-k programs that are not licensed were not included as part of this study.

Weighted Estimates of the number of teaching staff in NC Child Care Centers. Given the uncertainty about statewide denominators is difficult to directly assess a response rate for part- and full-time teachers and assistants in North Carolina child care centers. Estimates of the total number of teaching staff employed in NC Centers will differ depending on the source of information and the weights used. This study used the number 32,554 as the basis for weighting up teacher survey respondents. This number was selected as the estimated statewide number of teaching staff based on an aggregate number of directors' estimates of total teaching staff eligible for surveys in their centers, provided in either in director surveys or from phone interviews with directors in their center. This number was then weighted up to reflect the probability of selection and response at the center level to reflect the known number of licensed centers in North Carolina at the time the sampling frame was constructed in 2012. A larger number-- 39,254-is the estimated statewide teaching staff count based on aggregating the number of full and part time teachers and assistants from only the directors' surveys, where they were asked to break down their teaching staff into full- and part-time teachers and assistants. The differences between these two estimates may have come from the fact that directors may have enumerated the two groups differently at different times or reported these estimates in different ways at different times.

The differences in the percentage distribution of teaching staff by part-or full-time status in the teacher survey population and in the director survey estimation is worth noting. This comparison suggests that the teacher survey responses as currently weighted are more highly reflective of the core child care center workforce, i.e., full time staff, particularly of full time teaching staff, than of part time staff. Clearly the survey estimates are less representative of part-time teachers and assistants.

The differences in response patterns for full-time versus part-time workers is not surprising, and may have occurred for a number of reasons. Directors may have been less likely to distribute surveys to some part-time workers because they may not have considered them to be members of their regular staff, or because some of part time workers enumerated earlier may actually have been volunteers or temporary workers. On the other hand, some part-time workers who actually received surveys may have been less likely to respond.

The core full-time center teaching workforce in North Carolina likely consists of somewhere between 28,000 to 31,000 individuals who identify themselves as teachers or assistants who regularly work at a single center for 30 hours per week or more. Given our weighting scheme, almost 95% of teaching staff survey data reported here effectively comes from full-time teaching staff (i.e., 30+ hours per week) and of these about two thirds would be teachers. On the other hand, the size of the part-time teaching staff in North Carolina's centers is somewhat harder to specify, and varies somewhat depending on how "part-time" and "intermittent" these worker are at a given center. The number likely varies from 2,200 to about 8,200, but relatively fewer of these types of individuals are included in the dataset generated from the teacher survey. The extent to which these part-time workers have jobs in other settings, consider their child care work a "second job," or actually identify with or aspire to careers in child development is not well understood. Although it would be possible to perform a separate analysis of part time teaching staff, it would be difficult to draw meaningful conclusions from examination of an extrapolation from the small number of cases (N=159) available from the teacher survey database.

Appendix C

Definitions of key variables

Child Care Centers- an arrangement where, at any one time, there are three or more preschool-age children or nine or more school-age children receiving care. (from Child Care Center Handbook produced by the Division of Child Development and Early Education, 2009) Centers may be found in community buildings, churches or synagogues, buildings built specifically for child care, in private homes or in public buildings.

For-profit centers-Child care centers ranging from single-classroom facilities consisting of a multi-age group of children and one teacher/director to multi-site facilities enrolling hundreds of children and employing a director, assistant director, lead teachers and assistant teachers that are operated as sole proprietorships, partnerships, or corporations with the goal of making a profit for their owner or stockholders.

Non-profit centers-Child care centers operated by a board of directors that govern the program, that is mission-driven and not operated with a goal of making a profit. These programs may be sponsored by community or faith-based organizations. Includes programs with a Letter of Compliance (GS-110) as well as centers with a star-rated license.

Public (sponsored programs)-Head Start sites, public school sponsored and other publicly funded programs.

Family child care homes- a child care arrangement, located in a residence, where care is provided for three to eight children, for more than four hours at least once a week. (from Family Child Care Home Handbook produced by the Division of Child Development and Early Education, 2010)

Unlicensed pre-K programs - any child care program or arrangement consisting of two or more separate components, each of which operates for four hours or less per day with different children attending each component. (http://ncchildcare.dhhs.state.nc.us/providers/pv_sn2_rcc.asp)

NC Pre-K-a community-based education initiative designed to prepare at-risk four-year-olds in North Carolina for success in school. Pre-kindergarten classrooms operate for the school day and school year and are provided in diverse settings such as public and private schools, Head Start centers, and community-based child care centers and preschools. (http://ncchildcare.dhhs.state.nc.us/providers/pv_providres.asp)

People of color-races with skin pigmentation different from the white race. (from dictionary.reference.com)

Median-one of three measures of central tendency; the number representing the case which has equal cases above and below it. Throughout this report, "average" is used interchangeably with "median".

Degree-either an associate degree, bachelor degree, master degree or Ph.D. from an institute of higher learning.

Degree in ECE-an associate, bachelor's or masters degree or Ph.D. in either early childhood education or child development.

Degree in other-an associate, bachelor's or master's degree or Ph.D. in a field of study other than early childhood education or child development.

Star rated license system-North Carolina's Star Rated License System gives stars to child care programs based on how well they are doing in providing quality child care. Child Care programs receive a rating of one to five stars. A rating of one star means that a child care program meets North Carolina's minimum licensing standards for child care. Programs that choose to voluntarily meet higher standards can apply for a two to five star license. (http://ncchildcare.dhhs.state.nc.us/parents/pr_sn2_slfaq.asp)

T.E.A.C.H. Early Childhood®- This program provides comprehensive educational scholarships that help pay the cost of tuition, books, and travel, and may insure paid release time, require compensation incentives and encourage retention for child care providers working on a credential or degree in early childhood education or child development. (http://ncchildcare.dhhs.state.nc.us/providers/pv_providres.asp)

Child Care WAGE\$® Project-This program provides salary supplements that are linked to the education level of participants and are paid every six months as long as participants remain in child care program. (http://ncchildcare.dhhs. state.nc.us/providers/pv providres.asp)

Acknowledgements

Child Care Services Association would like to thank:

The Division of Child Development and Early Education for funding this study through a Race to the Top-Early Learning Challenge grant.

Dr. Thomas Konrad for performing the weighting and support with data analysis.

The child care providers who participated in the survey and who have dedicated themselves to providing quality care for young children in North Carolina.

For more information about the 2012 Statewide Workforce Survey, please contact the Research Department at Child Care Services Association, (919) 967-3272 or research@childcareservices.org.

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Working in Early Care and Education

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March, 2013
Child Care Services Association



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