

The North Carolina Rated License Assessment Project: Executive Summary¹

Introduction

The North Carolina Star Rated License was established in 1999 to better define the quality of child care in the state and to assist parents in choosing child care. The North Carolina Division of Child Development awards the Star Rated License to child care centers, family child care homes, and school-age programs based upon total points earned for program standards, staff education levels, and compliance history with child care regulations². One component of the program standards requirements—necessary to score three, four, or five points in this area—is an assessment utilizing observational instruments of global quality (ITERS-R, ECERS-R, FDCRS, and SACERS)¹. To receive three points in program standards, a facility must score at least 4.0 on the appropriate instrument in each classroom evaluated within a facility; four points requires an average of at least 4.5 in each classroom, and five points requires an average of at least 5.0 in each classroom (all scores are based on a seven-point scale). The University of North Carolina at Greensboro in collaboration with other state institutions of higher education is responsible for the statewide implementation of the assessment process for the Star Rated License.

This document provides an overview of assessment scores based on information collected during the first six years of the Star Rated License implementation (September 1, 1999, to August 31, 2005). It is important to note that these findings primarily apply to the quality of care in programs applying for three, four, or five points in program standards. Therefore, these findings are not based on a representative sample of programs in North Carolina partly because the majority of child care facilities in North Carolina and nearly all current programs with one, two, or three stars have not had an assessment using the rating scale.

Reaching For the Stars

According to the North Carolina Division of Child Development, as of November, 2005, there were 9,217 star rated licenses issued to centers and homes. A closer look shows that approximately 14 percent of child care centers and 8 percent of family child care homes have 5-star licenses, while nearly 26 percent of centers and 24 percent of homes have a 4-star rating. Tables 1 and 2 show that in the year 2005 the largest proportion of centers (31 percent) and homes (35 percent) have three stars.

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² Each part of the rated license (program standards, staff education standards, and compliance history) is worth up to five points. Licenses are awarded based on total points achieved (One Star = 3–4 points; Two Stars = 5–7 points; Three Stars = 8–10 points; Four Stars = 11–13 points; Five Stars = 14–15 points). Starting January, 2005, the rated license system will be changed (e.g., compliance history will be counted differently). For details, see <http://ncchildcare.dhhs.state.nc.us/general/home.asp>.

Table 1: Comparison of Star Rated Licenses for Centers in 2002 and 2005

| Stars | Centers—2002 | Percent—2002 | Centers—2005 | Percent—2005 |
|------------|--------------|--------------|--------------|--------------|
| One Star | 818 | 20% | 384 | 8% |
| Two Star | 123 | 3% | 69 | 1% |
| Three Star | 1364 | 33% | 1446 | 31% |
| Four Star | 796 | 19% | 1250 | 26% |
| Five Star | 316 | 8% | 661 | 14% |
| Other | 703 | 17% | 927 | 20% |

Table 2: Comparison of Star Rated Licenses for Homes in 2002 and 2005

| Stars | Homes—2002 | Percent—2002 | Homes—2005 | Percent—2005 |
|-------------|------------|--------------|------------|--------------|
| One Star | 3137 | 61% | 1383 | 31% |
| Two Stars | 81 | 2% | 45 | 1% |
| Three Stars | 1048 | 20% | 1577 | 35% |
| Four Stars | 583 | 11% | 1063 | 24% |
| Five Stars | 250 | 5% | 373 | 8% |
| Other | 66 | 1% | 39 | 1% |

Clearly, the percentage of centers and homes in the upper tiers of stars—four and five stars—has increased from 2002 to 2005. The percentage of centers at the four and five star level increased from 27% to 40% while the percentage of homes at the four and five star level increased from 16% to 32%.

Global Quality Rating Scale Assessments

During the first six years of the Star Rated License, 7,920 classrooms and homes were assessed in 3,347 (37 percent) facilities across all 100 counties in North Carolina. For participating child care centers, assessments were completed in approximately one-third of the classrooms (per facility) with at least one assessment completed in each age group (infants/toddlers; preschool; school-age). Each participating family child care home received one assessment. Assessments were completed by assessors with intensive training and extensive experience with the rating scales. Following the assessment, facilities received a detailed summary report of the assessment to assist program staff in improving the quality of services provided for children.

Partly because the assessment was voluntary, we believe that the programs receiving assessments represent the higher quality child care facilities in North Carolina. In child care centers, 100 percent of the 5-star programs have been assessed, 72 percent of the 4-star programs, 10 percent of the 3-star programs, and 5 percent of the 2-star programs. No 1-star programs were assessed. In family child care homes, 82 percent of the 5-star homes have been assessed, 35 percent of the 4-star homes, 3 percent of the 3-star homes, 5 percent of the 2-star homes. No 1-star homes were assessed. The average assessment scores achieved in preschool and school-age classrooms, as well as family child care homes, reflect “good” quality according to the scales (see Table 3). Although these programs represent the highest quality of child care available in North

Carolina, the average score in infant and toddler classrooms is less than “good.” (“Good” is equivalent to a score of 5 on the seven-point scale.)

Table 3: Rating Scale Average Scores

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------|--------|--------|--------|--------|--------|--------|
| ECERS-R | 5.13 | 5.02 | 4.81 | 4.95 | 5.07 | 5.11 |
| ITERS-R | 4.82 | 4.69 | 4.49 | 4.69 | 4.80 | 4.68 |
| SACERS | 5.24 | 5.24 | 5.10 | 5.23 | 5.25 | 5.23 |
| FDCRS | 5.34 | 5.04 | 5.04 | 5.08 | 5.14 | 5.07 |

*Scores are based on a 7 point scale (1 = Inadequate, 3 = Minimal, 5 = Good, 7 = Excellent).

Child Care Center Quality

Assessment scores provide valuable insight into the areas of achievement and those areas in need of resources and continuing improvement in child care centers across the state. The following discussion offers an overview of the average subscale scores for each instrument. To identify specific areas in need, those subscales with the lowest average score (per instrument) are examined.

Preschool Classrooms: Table 4 provides information regarding the average subscale scores for the ECERS-R, which was used to assess the quality of preschool classrooms. The average scores for four of six ECERS-R subscales were consistently higher than “good” (5 on a seven-point scale). Space and Furnishings nearly achieved a score categorized as “good” (4.85). However, the Personal Care Routines subscale had an average score of 3.82 (between minimal [3] and good [5]).

Table 4: ECERS-R Subscale Scores

| Subscale | Average Score |
|------------------------|---------------|
| Space and Furnishings | 4.85 |
| Personal Care Routines | 3.82 |
| Language-Reasoning | 5.53 |
| Activities | 5.21 |
| Interaction | 5.69 |
| Program Structure | 5.50 |

Table 5 provides a closer examination of the Personal Care Routines subscale. Only one item (Greeting/Departing) received an average score categorized between “good” and “excellent” (6.70). In contrast, most of the items in this subscale received average scores categorized between “minimal” and “good.” Furthermore, the item that measured Safety Practices received the lowest average item score of 2.47 (categorized between “inadequate” and “minimal” on the seven-point scale).

Table 5: ECERS-R Personal Care Routines Subscale

| Items | Average Score |
|-------------------------|---------------|
| 9. Greeting/departing | 6.70 |
| 10. Meals/snacks | 2.94 |
| 11. Nap/rest | 3.73 |
| 12. Toileting/diapering | 3.26 |
| 13. Health practices | 3.94 |
| 14. Safety practices | 2.47 |

Infant Classrooms: The results on the ITERS-R were quite similar to those of the ECERS-R, with all subscales scored as “good” or higher with the exception of Personal Care Routines. It seems quite clear on both the ECERS-R and the ITERS-R that the Personal Care Routines subscale was decidedly lower and weighed heavily on the overall rating scale scores (see Table 6).

Table 6: ITERS-R Subscale Scores

| Subscale | Average Score |
|------------------------|---------------|
| Furnishing and Display | 4.96 |
| Personal Care Routines | 3.27 |
| Listening and Talking | 5.80 |
| Learning Activities | 5.06 |
| Interaction | 5.60 |
| Program Structure | 4.91 |

Table 7 provides a closer examination of Personal Care Routines and indicates that scores for six of the seven items were quite low. In particular, the two items focusing on Health and Safety Practices (items 11 and 13) received the lowest average scores for this subscale and are rated between “inadequate” and “minimal” on the ITERS-R scale. Four of the seven items in this subscale received scores that were less than “minimal” on the seven-point scale, with two other items only slightly better than “minimal.”

Table 7: ITERS-R Personal Care Routines Subscale

| Items | Average Score |
|------------------------|---------------|
| 6. Greeting/departing | 6.43 |
| 7. Meals/snacks | 2.55 |
| 8. Nap | 3.20 |
| 9. Diapering/toileting | 2.72 |
| 10. Personal grooming | 3.25 |
| 11. Health practices | 2.35 |
| 13. Safety practices | 2.36 |

School-Age Classrooms: School-age classrooms achieved average marks of greater than 5 on four of the five subscales (see Table 8). However, once again the lowest subscale score in school-

age classrooms was on the Health And Safety subscale, yet the average score was noticeably higher than in the infant/toddler and preschool classrooms.

Table 9 provides an examination of the Health and Safety subscale and shows that two items were significantly lower than the other items scored. In particular, the items focusing on Safety Practices (item 15) and Meals/snacks (item 18) received the lowest average scores for this subscale which were categorized between “inadequate” and “minimal” on the SACERS scale.

Table 8: SACERS Subscale Scores

| Subscale | Average Score |
|-----------------------|---------------|
| Space and Furnishings | 5.37 |
| Health and Safety | 4.41 |
| Activities | 5.00 |
| Interactions | 5.62 |
| Program Structure | 5.79 |

Table 9: SACERS Health and Safety Subscale

| Items | Average Score |
|----------------------|---------------|
| 13. Health practices | 5.78 |
| 15. Safety practices | 2.40 |
| 16. Attendance | 4.93 |
| 17. Departure | 6.16 |
| 18. Meals/snacks | 3.05 |
| 19. Personal hygiene | 4.15 |

Family Child Care Homes: Approximately 15 percent of child care homes in the state have been assessed over the first six years of the rated license. Over the past 6 years, the average score on the FDCRS is 5.09 or a rating of “good” on the scale. Indeed, Table 10 shows that four of the five subscale scores received average scores of 5.0 or higher.

Table 11 shows that, in contrast to the exceptionally high average score for the Arriving/leaving item, all of the remaining items in the Basic Care subscale were categorized as lower than “good” quality. Specifically, three of the subscale items were categorized between “minimal” and “good” (items 9, 11, and 12). Whereas, the items focusing on Meals/Snacks (item 8) Diapering/Toileting (item 10) and Safety practices (item 13) received the lowest average scores for this subscale which were categorized between “inadequate” and “minimal” on the FDCRS scale.

Table 10: FDCRS Subscale Scores

| Subscale | Average Score |
|-----------------------|---------------|
| Space and Furnishings | 5.13 |
| Basic Care | 3.92 |
| Language-Reasoning | 5.56 |
| Learning Activities | 5.52 |
| Social Development | 5.54 |

Table 11: FDCRS Basic Care Subscale

| Items | Average Score |
|-------------------------|---------------|
| 7. Arriving/leaving | 6.93 |
| 8. Meals/snacks | 2.91 |
| 9. Nap/rest | 4.69 |
| 10. Diapering/toileting | 2.77 |
| 11. Personal grooming | 3.54 |
| 12. Health | 4.38 |
| 13. Safety | 2.21 |

Teacher Education and Program Quality

In addition to the rating scale data, information about teacher/provider education was collected to explore the relationship between education of the teacher/provider and the score received on the rating scale. Our findings provide compelling evidence of an increase in rating scale scores in child care centers with increasing levels of teacher education. As seen in the Tables 12a and 12b, there was a clear connection between rating scale scores and the amount of education that a teacher had completed.

When all of the center-based assessments were combined, we found that teachers with a 4-year degree had significantly higher rating scale scores than teachers with less education. Teachers with 2 years of college yielded significantly higher rating scale scores than high school and some college. Furthermore, a two-year degree was shown to be necessary for a score of “good” to be achieved on the rating scales. In family child care homes, although statistical differences between education groups were not found (probably due to the low number of providers degrees), our findings suggest a gradual increase in rating scale scores when home providers have more education.

Table 12a: Rating Scale Average Scores By Education in Center-Based Care

| Education Level | Combined Average Scores |
|-------------------------|-------------------------|
| High School | 4.78 |
| Some College | 4.84 |
| 2-Year Degree | 5.05 |
| 4-Year Related Degree | 5.16 |
| 4-Year Degree in CD/ECE | 5.22 |
| Graduate Work | 5.23 |

Table 12b: Rating Scale Average Scores By Education in Home-Based Care

| Education Level | Combined Average Scores |
|-------------------------|-------------------------|
| High School | 4.85 |
| Some College | 5.08 |
| 2-Year Degree | 5.14 |
| 4-Year Related Degree | 5.22 |
| 4-Year Degree in CD/ECE | 5.35 |
| Graduate Work | 5.24 |

Recent Publications and Presentations

Cassidy, D. J., Hestenes, L. L., Hegde, A., Mims, S., & Hestenes, S. (2005). Measurement of quality in preschool child care classrooms: An exploratory and confirmatory factor analysis of the Early Childhood Environment Rating Scale-Revised. *Early Childhood Research Quarterly, 20*(3), 345-360.

The purpose of the study was to examine the psychometric properties of the ECERS-R with a large sample. We explored both the seven subscales and the possibility of fewer distinct aspects of quality being measured by the scale. The large sample size allowed both exploratory and confirmatory factor analyses to be performed. The results showed two distinct factors, Activities/Materials (9 items) and Language/Interaction (7 items), which accounted for 69% of the variance. High internal consistency scores, a moderate correlation between the factor-based scales, and a strong correlation between the combined factor-based scales and the overall ECERS-R score (.90) suggested these were distinct factors that could serve as a proxy for the larger scale. Structural aspects of quality and teacher education were examined in relation to the new factor-based scales and the overall score. Implications for practitioners and future research suggestions are provided.

Cassidy, D. J., Hestenes, L. L., Hansen, J. K., Hegde, A., & Shim, J. 2005). Revisiting the two faces of child care quality: Structure and process. *Early Education and Development, 16*(4), 505-520 .

While child care quality has been examined in numerous studies, the definition of quality and specifically, the concepts of structural and process quality, have not been adequately explored. In this qualitative analysis of the constructs of process and structural quality, a content analysis of the Early Childhood Environment Rating Scale-Revised (ECERS-R) was conducted to investigate its use as a measure of process quality. Through constant comparative analysis of the ECERS-R at the indicator level, definitions of structure and process were formulated. Results

show that over half of the indicators of the ECERS-R are measuring structural quality rather than process quality. Further examination of quality as a dynamic exchange between individuals and context is needed to advance research in the area of early childhood program quality.

Cassidy, D. J., Hestenes, L. L., Hestenes, S., Mims, S., Hansen, J., & Hegde, A. (2005, April). *Measurement of quality in infant/toddler child care classrooms*. Poster presentation at the Biennial meeting of the Society for Research in Child Development, Atlanta, Georgia.

The quality of care in infant and toddler classrooms was compared across inclusive (N=66) and non-inclusive classrooms (N=400). Quality was measured using the Infant/Toddler Environment Rating Scale-Revised (ITERS-R). An exploratory and confirmatory factor analysis revealed four distinct dimensions of quality within the ITERS-R: Materials/Activities, Safety/Organization, Language/Interaction, and Parents/Staff. Inclusive classrooms were higher in quality on the overall scale as well as on three of the four factor-based scales. Teachers reported on average that children had mild to moderate disabilities. Correlational analyses indicated that having more children with disabilities was associated with higher quality programs, but having children with more severe disabilities was not associated with higher or lower quality scores. Teacher education and teacher-child ratios were important predictors of quality. Information on low scoring items on the Personal Care Routines subscale was also presented.

Hestenes, L. L., Cassidy, D. J., Turner, A., & Connelly, S. (December, 2001). *The quality of inclusive versus non-inclusive child care in North Carolina*. Presentation at the Annual International Division for Early Childhood Conference on Children with Special Needs, Boston, MA.

Results indicated that inclusive preschool classrooms (n = 396) were higher in quality than classrooms with only typically developing children (n = 710). Inclusive classrooms had a mean score of 5.25, while non-inclusive classrooms had an average score of 4.96. Inclusive classrooms (N = 393) had teachers with significantly more education than teachers from non-inclusive programs (N = 689). Teachers in inclusive classrooms also had significantly more college course hours in special education than teachers of only typically developing children. Bivariate correlations between overall quality scores and the weighted severity score (level of severity of a child's disability as scored by the teacher) showed there was a significant positive relationship, indicating that as the severity score increased so did the quality of the classroom. The results also revealed a significant positive relationship between number of children with disabilities and overall quality. That is, the greater the number of children with disabilities in a classroom, the higher the level of global quality.

ⁱ Harms, T., Cryer, D., and Clifford, R. (2004). *Infant Toddler Environment Rating Scale-Revised*. Teachers College Press: New York.
Harms, T., Cryer, D., and Clifford, R. (2003). *Infant Toddler Environment Rating Scale-Revised*. Teachers College Press: New York.
Harms, T., Clifford, R., and Cryer D. (1998). *Early Childhood Environment Rating Scale—Revised*. Teachers College Press: New York.
Harms, T., and Clifford, R. (1989). *Family Day Care Rating Scale*. Teachers College Press: New York.
Harms, T., Jacobs, E., and White, D. (1996). *School-Age Care Environment Rating Scale*. Teachers College Press: New York.