



Practice & Policy
RESEARCH QUARTERLY

OKLAHOMA SCHOOL READINESS **Reach-by-Risk** Report 2014

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The present report is a special Quarterly publication that features information about school readiness risk and reach for each county in the state in a highly graphic format. The primary aim is to contribute to informed decision-making on early childhood policy and resource allocation issues across the state. As such, the report is designed with an eye toward helping program administrators, practitioners, policy makers, and other stakeholders visualize and interpret data and results quickly. This publication is a companion document to the Oklahoma Partnership for School Readiness 2013 Annual Report that highlights some of its results.

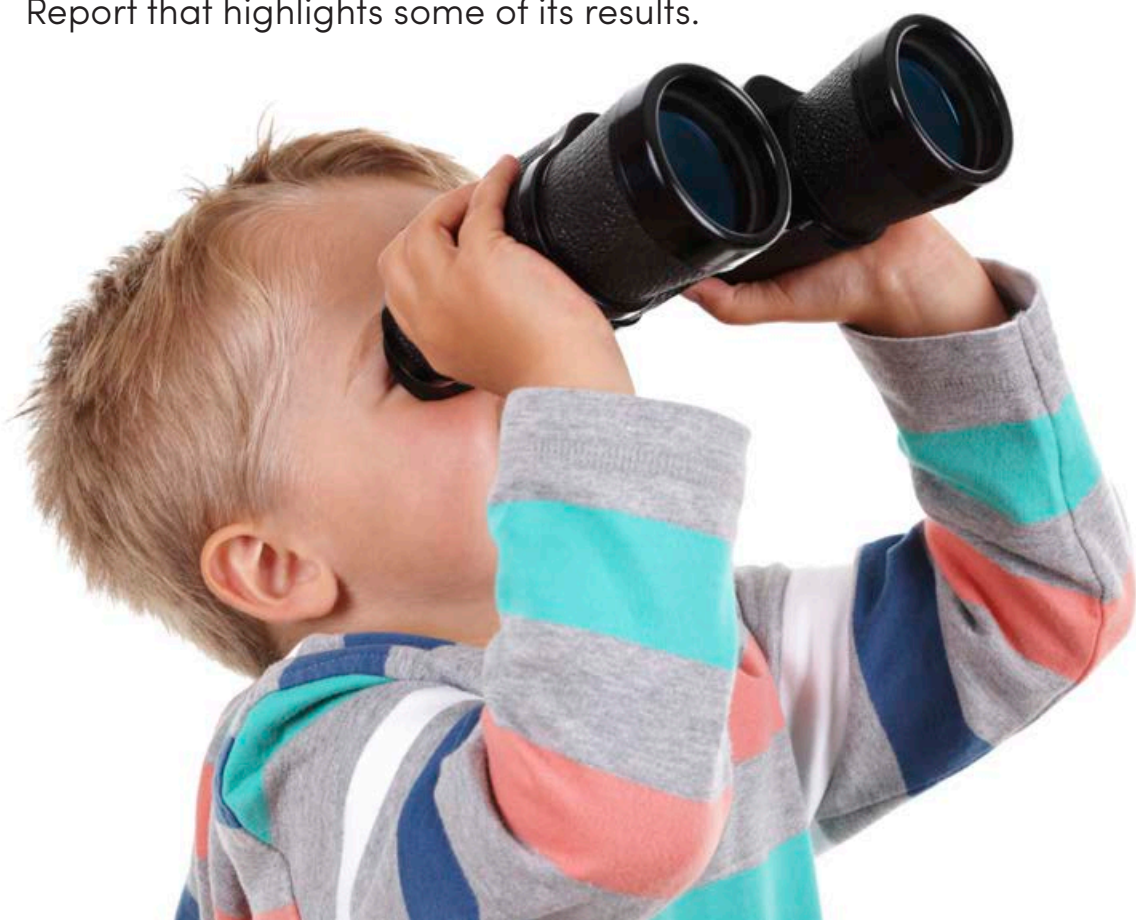


TABLE OF CONTENTS

2	ACKNOWLEDGEMENTS
3	EXECUTIVE SUMMARY
7	INTRODUCTION
13	OKLAHOMA SCHOOL READINESS RISK INDEX: UPDATED INDICATORS AND RESULTS
28	EARLY CHILDHOOD PROGRAMS AND SERVICES: REACH INDEX RESULTS
39	LIMITATIONS AND CONCLUSIONS
42	APPENDICES

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The views presented here are our own and should not be taken to reflect those of DHS or other contributing agencies.

EXECUTIVE SUMMARY

PURPOSE

The purpose of the **Oklahoma School Readiness Reach-by-Risk Report 2014** is to provide policy makers and other early childhood stakeholders with current data on factors that place children at risk of being unprepared for school and on the reach of services and programs that promote school readiness for each of the state's 77 counties.

By analyzing the prevalence of certain sociodemographic indicators of school readiness, this report highlights counties where children are at high risk for starting kindergarten unprepared to learn. This issue is critical for the state and the nation as children who begin school already behind are likely to remain behind throughout their academic life, severely limiting their individual potential and perpetuating the cycle of poverty.

Understanding risk alone, however, is insufficient for determining where the need is greatest. Resources can be more efficiently distributed if risk is understood in relation to the reach of early education and child care services. To achieve this goal, the Oklahoma Department of Human Services (DHS) presents this report in an effort to identify gaps between the risk of starting school un-ready to learn and the reach of programs that prepare children for school. With this publication, Oklahoma joins other states in monitoring indicators of school readiness risk and reach and promoting informed policy and funding decisions related to quality early childhood education and child care.

This report is divided into two main sections, Risk and Reach. The **Risk** section consists of an analysis of 10 socioeconomic and demographic indicators found by empirical research to increase a child's risk of being unprepared for school. These factors are assessed for each of the state's 77 counties, resulting in a county-level risk value and categorization into one of four risk categories ranging from High to Low Risk. The **Reach** section assesses the county-level service density of six primarily publicly funded early childhood education and four home visitation programs designed to increase the cognitive and social-emotional development of young children, in addition to several aspects of child care services, such as provider quality ratings and enrollment of children with child care subsidies in quality facilities.

METHODOLOGY

The indicators highlighted in this report have been identified in the literature as factors that place children at risk of starting kindergarten already behind, are available by the county level, and are updated annually, which allows for continued monitoring. For each indicator, data at the state and county levels were collected from multiple secondary sources and reported as proportions of relevant populations (e.g., percent of live births to mothers with low levels of education).

Data were statistically analyzed using multivariate techniques to create components, or "sets" of factors that most closely correlated with each other and that significantly explained school readiness, with third-grade reading proficiency used as a proxy of readiness. Three sets emerged from the analysis as significantly associated with school readiness: Hispanic background, family structure and economic distress, and children in child welfare. Further analysis was conducted to assign overall risk scores to each county, group counties into quartiles based on these overall scores, and classify groups according to categories of High, High-Medium, Medium-Low, and Low Risk for poor school readiness. It is important to note that risk is based on a comparison of Oklahoma counties relative to each other, which excludes direct comparisons to other states or the nation.

RISK

Reach was assessed by requesting data for early education programs, such as Head Start (HS), Early Head Start (EHS) and the state's universal pre-kindergarten program; early childhood home visitation programs, such as SoonerStart, the state's IDEA Part C – Early Intervention program; and child care services. Agencies contacted for data include the Oklahoma Departments of Human Services, Health and Education, and the Oklahoma Association of Community Action Agencies and American Indian tribal governments responsible for HS and EHS programs. For all but five programs, reach ratios were calculated for each county and summarized into an index using the same methodology applied for risk, and counties were classified as High, High-Medium, Medium-Low and Low Reach on individual programs and in three indexes: Overall Reach, Education Reach and Child Care Reach. Reach data are compared to overall risk for poor school readiness for each county, which highlights counties with the greatest need for early childhood education and child care services relative to risk.

FINDINGS

RISK

An average score in the High Risk category means counties have, overall, among the highest rates of socioeconomic and demographic factors known to impede school readiness. This suggests that children in these counties are more likely to be unprepared to learn when they start kindergarten and to have poor educational outcomes.

HIGH RISK: Approximately 40,896 children under age 6, or 13% of the state's population of children in this age group, reside in 19 counties with the greatest concentration of risk factors. The number of factors for which counties in this group ranked as High Risk range from three to seven, with a mean of five High Risk factors.

HIGH-MEDIUM RISK: At somewhat less risk, but still of concern, are the 103,669 children (33%) who live in the 19 counties classified as High-Medium Risk. The number of factors for which counties in this group ranked as High Risk range from one to five, with a mean of three High Risk factors.

MEDIUM-LOW RISK: An estimated 94,555 children under age 6 (30%) reside in 18 counties with an even lower prevalence of risk factors, but may have moderate rates for a few factors. The number of factors for which counties in this group ranked as High Risk range from zero to three, with a mean of one High Risk factor.

LOW RISK: Twenty-one counties have the lowest level of overall risk, with 77,380 children (24%) residing in these counties. The number of factors for which counties in this group ranked as High Risk range from zero to two, with a mean of less than one High Risk factor.

OVERALL: In total, 144,565 children under age 6 live in counties classified as High Risk or High-Medium Risk for poor school readiness. This represents an estimated 46% of all children under age 6 in Oklahoma.

SCHOOL READINESS RISK FACTORS: VARIABLE SETS

HISPANIC BACKGROUND

Four risk indicators are associated with being Hispanic and having limited English skills and include: percent of children under age 5 who are Hispanic/Latino, percent of pre-kindergarten and kindergarten students who are English-language learners, percent of infants born to mothers who lack a high school diploma, and percent of children under age 6 who receive Migrant Education Program services. Of Oklahoma counties, 34 (44%) were classified as High Risk on at least one indicator, with two counties scoring High Risk on all four indicators.

FAMILY STRUCTURE AND ECONOMIC DISTRESS

Four risk indicators are associated with poverty and family structure and include: percent of children under age 6 living under 100% of the federal poverty level, percent of children under age 6 living in households headed by single parents, percent of infants born to mothers between the ages of 10 and 19, and percent of children under age 5 who are American Indian/Alaskan Native. Of Oklahoma counties, 40 (52%) were classified as High Risk on at least one indicator, with five counties scoring High Risk on all four indicators.

CHILDREN IN CHILD WELFARE

Two risk indicators are associated with child welfare and include: percent of children under age 6 who have experienced abuse and neglect, and percent of children under age 6 in DHS custody. Of Oklahoma counties, 24 (31%) were classified as High Risk on at least one indicator, with 14 counties scoring High Risk on both indicators.

REACH

An average score in the High Reach category means counties have high rates of reach for particular programs and services or in combination. A positive correlation was found between overall reach and risk, meaning that as risk increases, so does reach. The same results were obtained for the education Reach Index, but not for the child care Reach Index, for which High Risk counties are not served at a significantly higher rate than lower risk counties. A handful of counties at greatest risk are in the lowest reach group.

EARLY CHILDHOOD EDUCATION

The greatest reach for early childhood education programs is among High Risk counties that serve a considerably greater proportion of children in HS, EHS and publicly funded pre-kindergarten than all other risk groups. In addition, children in High Risk counties have the highest rate of full-day pre-kindergarten attendance. The High-Medium Risk group serves a similar rate of children in pre-kindergarten and HS as lower risk counties, and, with the fewest number of counties with EHS, the lowest rate of children in this program.

CHILD CARE

The High Risk group ranks at the bottom of several child care indicators. Although these counties have the highest rate of child care centers of all licensed providers, they have the lowest rate of quality providers with Two and Three Star ratings and the lowest overall and quality capacity rates for serving children under age 6 with working parents. Further, High Risk counties have one of the lowest rates of child care providers that contract with DHS to accept child care subsidy payments. High Risk counties have the lowest rate of subsidy enrollment of total contractor capacity and the lowest rate of subsidy enrollment at Two and Three Star providers.

HOME VISITATION

Home visitation reach could only be determined for Oklahoma Parents as Teachers (OPAT), which serves 27 counties. The High Risk group has the fewest counties (four) and the lowest rate of children served.

CONCLUSION

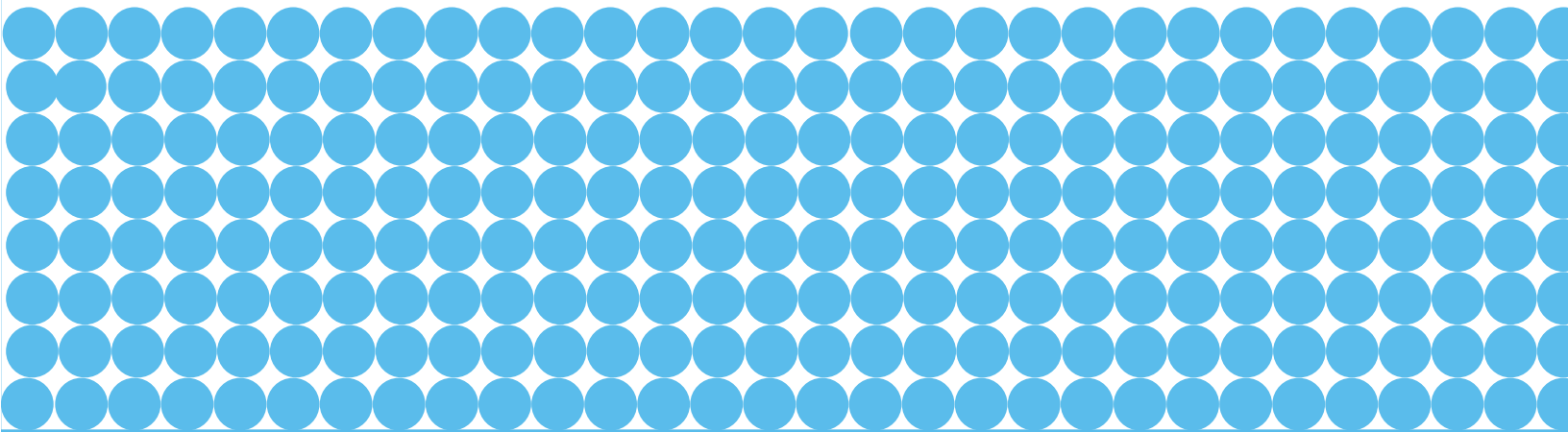
As the overall risk classification is a summary measure, it does not capture the complexity of school readiness risk for each county. To fully understand issues facing each county, a summary of risk classifications is provided in the appendix. While data on the reach of early childhood programs allows for a comparison of risk and service levels for each county, it is important to note that reach data are limited by the potential inclusion of duplicated numbers of children and by including only the largest programs that benefit young children.

This report relies on those indicators described in the literature and evidenced in the analysis as having a significant effect on school readiness, but they are by no means exhaustive. Data presented in this document provide a reliable estimate of school readiness risk and reach that can be used to inform policy decisions and allocation of critical but limited resources. It also serves as a baseline for continued monitoring of the state of school readiness in Oklahoma. In the future, more variables that explain school readiness will be included in the analysis as data become available at the county level.

REACH



INTRODUCTION



By analyzing the prevalence of factors known to place young children at risk of being unprepared for school and comparing the reach of education and child care services to risk levels, Oklahoma joins other states in placing early childhood education and well-being as a priority for continued monitoring. This report highlights counties whose children are at greatest risk of poor school readiness and identifies counties that are underrepresented in terms of quality early childhood education, home visitation and child care services.

The [Oklahoma School Readiness Reach-by-Risk Report](#) builds on the development of the Oklahoma School Readiness Risk Index (SRRI) in 2011 by including data on the scope of early childhood programs in each of the state's 77 counties. This information is intended to provide policy makers, program administrators and other early childhood education stakeholders insight into areas of the state at greatest risk for children starting kindergarten unprepared to learn. By producing this report, the Oklahoma Department of Human Services (DHS) provides a means of measuring school readiness risk and reach that did not previously exist for the state. Because data used in this report are collected regularly by state agencies and the U.S. Census, school readiness in Oklahoma can continue to be monitored over the long term.

Even though individual differences in children's early academic skills and behaviors can be expected, research shows that socioeconomic factors significantly explain gaps in school readiness.^{1,2,3} Evidence suggests it is the cumulative effect of multiple risks that leads to poor school-entry academic achievement.^{4,5} For example, children from families with multiple risk factors, such as poverty or low maternal education, have lower cognitive development, lower social and emotional growth, more health problems, and demonstrate an academic achievement gap at kindergarten entry compared to peers without these risk factors.^{6,7,8,9}

Without adequate education and support, children facing early academic challenges will have higher risk in terms of long-term education and employment achievements. Evidence shows they are more likely to drop out of school, have greater difficulty finding high-paying employment, depend on the support of welfare programs, or even commit crime.^{10,11,12} Identification of risk factors that hinder cognitive, social and mental development of children is the essential first step toward preventing negative outcomes and promoting successful lives. Moreover, young children living in high-risk environments can be successful if they participate in high-quality early education programs.^{7,13,14,15}

This report consists of two main parts in addition to discussion of limitations and conclusions and appendices with detailed tables of data related to risk indicators and program reach. Part one is devoted to [Risk](#) and assesses 10 indicators known to impede school readiness. Part two is focused on [Reach](#) and profiles the scope of services provided in each county for six primarily publicly funded early childhood education programs, four home visitation programs, and several aspects of child care services, such as provider quality ratings and enrollment of children with child care subsidies in quality facilities.

METHODOLOGY

RISK

The risk factors (also referred to as indicators) identified for possible inclusion in the SRRI were selected based on a comprehensive review of published research on socioeconomic and demographic indicators strongly associated with school readiness. To be included, indicators had to be available at the county level and be updated regularly to allow for continued monitoring. For each indicator, data at the state and county levels were collected from multiple secondary sources and reported as proportions of relevant populations (e.g., percent of live births to mothers with low levels of education). Data were statistically analyzed using multivariate techniques to narrow the number of indicators by creating components, or "sets" of factors most closely correlated with each other, that significantly explain school readiness, with third-grade reading proficiency used as a proxy of readiness.^a Three sets emerged from the analysis as significantly associated with school readiness: Hispanic background, family structure and economic distress, and children in child welfare. Figure 1 shows the sets and the individual variables that comprise each component as well as their corresponding weightings.^b Appendix 2 provides descriptions of each indicator and sources of data. Figures 1 thru 5 adapted from Alliance Development Works, 2012.¹⁶

Standard scores, also known as z-scores, for each indicator were calculated based on individual county and statewide percentages.^c Each indicator was weighted equally and z-scores were averaged across all 10 indicators for an overall school readiness risk score. Counties were ranked from 1 to 77 according to the severity of the overall score, with higher scores representing higher risk, and cut-points based on quartiles were used to classify counties into four groups according to categories of High, High-Medium, Medium-Low, and Low Risk for poor school readiness (Table 1). It is important to note that risk is based on a comparison of Oklahoma counties relative to each other, which excludes direct comparisons to other states or the nation.

Data for these 10 indicators were updated with the most recent data available as of fall 2013. Therefore, the Risk Index is a revised version of the index published by DHS in April 2013.¹⁷ In addition, the methodology used to calculate the index has been modified from prior publication.^d Summary tables highlighting counties with the highest and lowest rates for each indicator are included in the body of the report, with Appendix 5 listing rates for each county. Rates are also shown on maps included for each indicator. Counties are color coded to represent risk level per indicator, and overall percentages for each risk group are presented next to the risk group legend. Color coding for maps and appendix tables ranges from dark orange for High Risk to dark blue for Low Risk.

Figure 1. Indicators used to measure school readiness risk

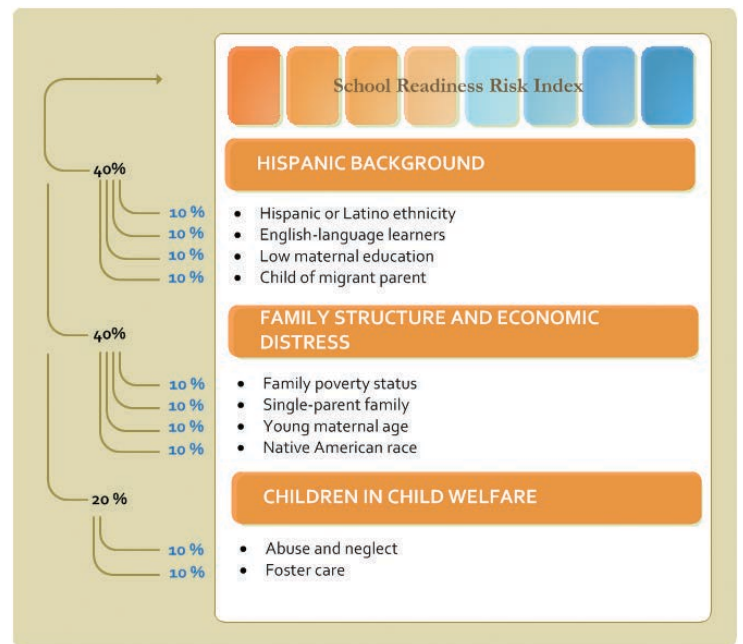


Table 1: Risk group score range, number of counties and children under age 6 in Oklahoma

Average z-score	Number of counties	Number of children (0-5) ¹	Percent of all children 0-5 in Oklahoma	Risk level
0.326 to 1.494	19	40,896	12.9%	High Risk
0.005 to 0.325	19	103,669	32.8%	High-Medium Risk
-0.291 to 0.004	18	94,555	29.9%	Medium-Low Risk
-1.090 to -0.292	21	77,380	24.4%	Low Risk
	77	316,500		

¹Source: US Census 2010

REACH

To investigate the relationship between risk classification and reach of services that support school readiness, data were requested from the following programs and services: early childhood education (Head Start, Early Head Start, and the state’s universal pre-kindergarten program); home visitation (Oklahoma Parents as Teachers, Children First, Start Right, and SoonerStart/Early Intervention), and child care services. Table 2 lists programs and services used to measure reach and indicates those for which reach ratios were calculated.

Agencies contacted for data include DHS (Oklahoma Child Care Services), Oklahoma State Department of Health, Oklahoma State Department of Education, and the Oklahoma Association of Community Action Agencies and American Indian tribal governments responsible for Head Start (HS) and Early Head Start (EHS) programs.

Programs were provided with a list of data needed, such as overall enrollment and enrollment by age, race/ethnicity, and status related to disabilities, homelessness, foster care, income, and whether children attended center- or home-based programs on a full- or half-day basis. Not all data were available due to restrictions related to privacy, such as low numbers that could potentially identify children or families served, or to the process by which programs routinely collect data that prevented responding to all variables requested. A total of 12 indicators across 5 programs and services (EHS, HS, pre-kindergarten program, and child care services) were used to calculate the Reach Index. Figure 2 shows the variables that comprise the overall index and individual indexes as well as their corresponding weightings. Appendix 8 provides descriptions of each indicator and data sources.

Table 2: Programs highlighted for reach

Program	# Counties served	Ages served	Income eligibility	Reach ratio
Education				
Head Start	77	3 to 4 ^a	<100% FPL ^b	x
Early Head Start	41	Pregnancy to 2	<100% FPL ^b	x
OK Pre-K (4-year-old)	77 (512 districts)	4	None	x
OK Pre-K (3-year-old)	74 (281 districts)	3	None	x
OK Early Childhood Program	7	Infant to 3	<185% FPL	
Educare	2	Infant to 5	<100% FPL	
Child Care				
Licensed centers	77	Infant to 5 ^c	<185% FPL	x
Overall capacity	77	Infant to 5	<185% FPL	x
Quality (2 & 3 Star) capacity	77	Infant to 5	<185% FPL	x
OKDHS contractors	77	Infant to 5	<185% FPL	x
Subsidy enrollment to capacity	77	Infant to 5	<185% FPL ^d	x
Quality (2 & 3 Star) subsidy enrollment	77	Infant to 5	<185% FPL ^d	x
Home Visitation				
Children First	67 ^e	Pregnancy to 1	<185% FPL	
Start Right	38	Pregnancy to 4	None	
SoonerStart/Early Intervention	50 ^e	Infant to 2	None	
OK Parents as Teachers (OPAT)	27	Infant to 2	<185% FPL	x

^a Technically serves age 5, excluded from report as 28 5-year-olds served in OK in 2011-2012; ^b Federal poverty level, HS and EHS regulations allow 10% of children served to exceed income requirements if meet other criteria; ^c Age group for all child care data used for purposes of report; ^d Estimated eligibility based on household income thresholds used to qualify families for subsidized care; ^e Services available to all counties

Reach ratios were calculated by estimating the total eligible population for each county using U.S. Census data for individual ages and, when applicable, poverty rates, and dividing the total number served by total eligible. The outcome is an estimated percent of eligible children served. For three home visitation programs (Children First, Start Right and SoonerStart) and two education programs (Oklahoma Early Childhood Program and Educare), ratios were not possible due to data restrictions, such as masked data to protect privacy; difficulty in identifying eligible populations, such as children at risk for abuse and neglect; or programs that serve municipalities rather than counties. Reach ratios are mapped onto county risk levels to highlight counties with the greatest need for early childhood education, home visitation and child care services relative to risk.

The same methods noted above to calculate the SRRRI were used to rank counties according to scope of reach and compute a Reach Index, based on averaged z-scores for all programs and indicators with reach ratios,^e with higher rank and scores representing greater reach. Quartiles were used to classify counties into four categories of High, High-Medium, Medium-Low and Low Reach (Table 3). Color coding for appendix tables ranges from dark blue for High Reach to dark orange for Low Reach.

Figure 2: Programs and indicators used to measure reach

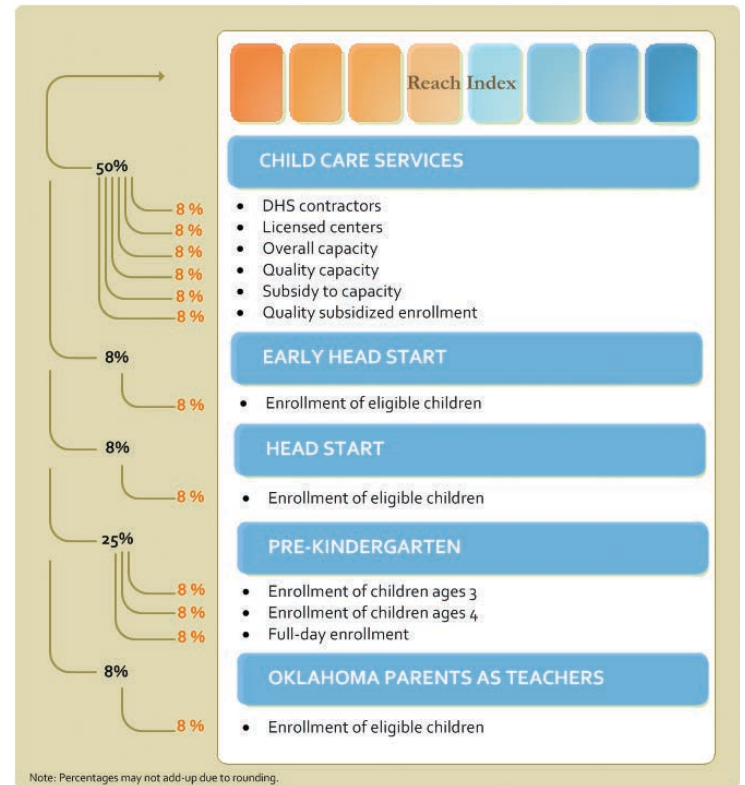


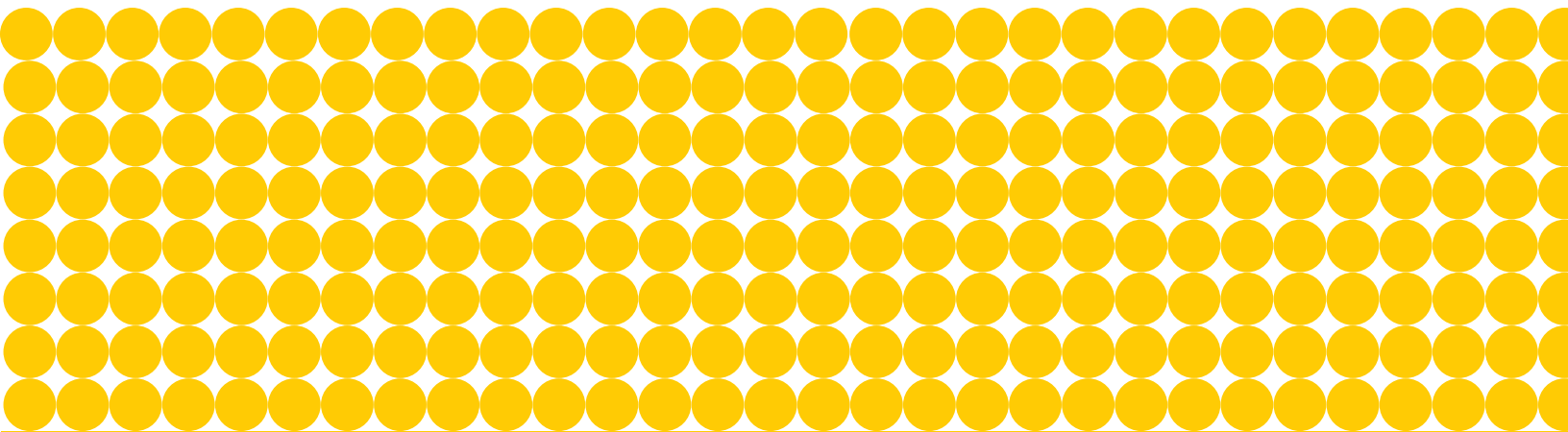
Table 3. Reach group score range, number of counties and children under age 6 in Oklahoma					
Average z-score	Number of counties	Number High / High-Medium Risk counties	Number of children (0-5) ¹	Percent of all children 0-5 in Oklahoma	Reach level
0.301 to 0.687	19	9 / 5	48,020	15.2%	High Reach
0.300 to 0.039	19	3 / 8	98,302	31.1%	High-Medium Reach
0.034 to -0.195	19	3 / 4	110,577	34.9%	Medium-Low Reach
-0.203 to -1.146	20	4 / 2	59,601	18.8%	Low Reach
	77		316,500		

¹Source: US Census 2010

In addition to an overall Reach Index, separate indexes were calculated for the four education programs (HS, EHS, and pre-kindergarten for 3 and 4 year olds) combined and the six child care indicators combined. Summary tables highlighting counties with the highest and lowest reach for each program are included in the body of the report, with Appendices 11 to 13 listing reach ratios, when applicable, for each county. Appendix 9 lists counties by risk and reach groupings combined for the overall, education and child care Reach Indexes.



OKLAHOMA SCHOOL READINESS RISK INDEX (SRRI) 2013: Updated indicators and results



Identification of risk factors that hinder cognitive, social and mental development of children is the essential first step toward preventing negative outcomes and promoting successful lives. The SRRI estimates the extent to which children in each of Oklahoma's 77 counties are at risk for starting school unprepared to learn and informs policy making and distribution of critical early childhood resources.

OVERALL RISK

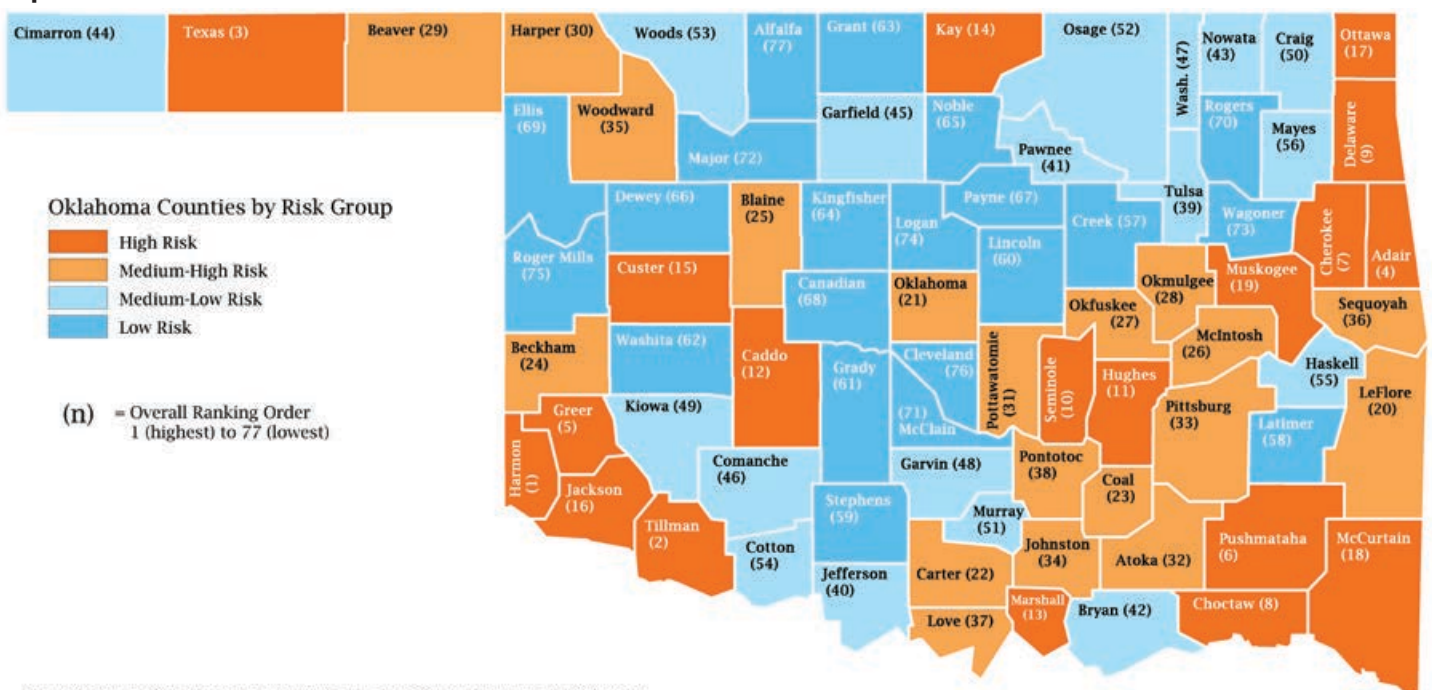
Although 38 of Oklahoma’s 77 counties have overall rankings that classify them as High or High-Medium Risk, 59 are classified as High Risk on at least one indicator and 71 as High-Medium Risk on at least one indicator. The number of indicators rated as high risk level for the High Risk group ranges from three to seven, with a mean of 4.74. In contrast, the number of indicators rated as high risk level for the Low Risk group ranges from zero to two, with a mean of 0.33.

Table 4 lists the 20 counties with the highest and lowest scores on the SRRI. Higher scores represent higher risk and mean that counties have large percentages of children with multiple risk factors. Scores range from a high of 1.494 for Harmon County to a low of -1.090 for Alfalfa County, with Tulsa County at the median (0.004). As Map 1 shows, counties with the highest overall risk are concentrated in the northeast, southeast and southwest parts of the state, with pockets of concentration in counties in the panhandle, north central and south central regions.

Table 4. Rank and score on the Oklahoma School Readiness Risk Index 2013

Rank	County	Score
1	Harmon	1.494
2	Tillman	1.229
3	Texas	1.138
4	Adair	0.797
5	Greer	0.765
6	Pushmataha	0.709
7	Cherokee	0.685
8	Choctaw	0.593
9	Delaware	0.580
10	Seminole	0.576
39	Tulsa	0.004
68	Canadian	-0.651
69	Ellis	-0.652
70	Rogers	-0.659
71	McClain	-0.659
72	Major	-0.715
73	Wagoner	-0.718
74	Logan	-0.746
75	Roger Mills	-0.792
76	Cleveland	-0.873
77	Alfalfa	-1.090

Map 1: Overall risk



Note: Color coding represents overall risk classification across all 10 factors

HISPANIC BACKGROUND

This component represents risk associated with being of Hispanic or Latino ethnicity, having poor English language skills, and being born to mothers with low educational levels. For both English-language learners and low maternal education, correlations with Hispanic ethnicity are higher than with other variables. This is in line with national research that shows Hispanic children experience multiple school readiness risk factors at high rates.¹⁸

Table 5 lists the 20 counties with the highest and lowest scores on this component. Higher scores represent higher risk and mean that counties have large percentages of children who are Hispanic, are ELL, and were born to mothers with less than a high school diploma. Scores range from a high of 4.72 for Texas County to a low of -1.143 for Alfalfa County, with Craig County at the median (-0.258). Maps 2 through 5 show indicator rates by county and by risk group. High Risk counties have the greatest rates for low-educated mothers and migrant children, and the second-highest rate, behind High-Medium Risk counties, for Hispanic ethnicity and ELL. Rates for High and High-Medium Risk groups exceed the state.

Table 5. Rank and score on the Hispanic Background component

Rank	County	Score
1	Texas	4.720
2	Harmon	2.468
3	Harper	2.126
4	Tillman	1.717
5	Marshall	1.412
6	Adair	1.358
7	Oklahoma	1.219
8	Beaver	0.862
9	Jackson	0.806
10	Tulsa	0.768
39	Craig	-0.258
68	Logan	-0.678
69	Lincoln	-0.726
70	Wagoner	-0.729
71	Ellis	-0.729
72	Roger Mills	-0.765
73	Noble	-0.799
74	Cotton	-0.799
75	Grant	-0.921
76	Woods	-1.049
77	Alfalfa	-1.143

Figure 3: Indicators used to measure Hispanic Background component



Table 6. Rank and rate of children under age 5 who are Hispanic (2007-2011)

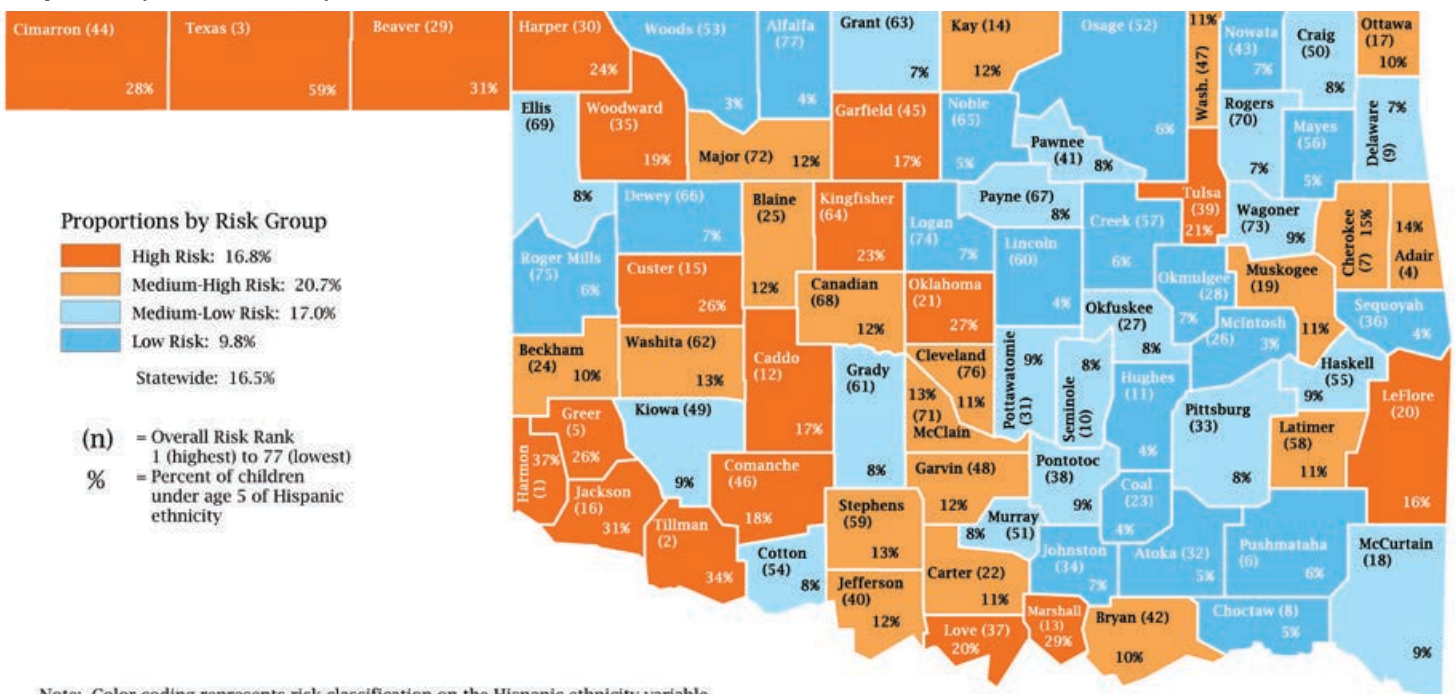
Rank	County	Percent
1	Texas	58.6
2	Harmon	37.4
3	Tillman	33.5
4	Beaver	31.4
5	Jackson	31.1
6	Marshall	29.1
7	Cimarron	27.8
8	Oklahoma	26.6
9	Custer	25.8
10	Greer	25.7
39	Haskell	9.3
68	Choctaw	5.2
69	Mayes	5.2
70	Atoka	5.1
71	Alfalfa	4.5
72	Hughes	4.3
73	Coal	4.2
74	Lincoln	4.1
75	Sequoyah	3.8
76	Woods	3.4
77	McIntosh	3.3

1. HISPANIC/LATINO ETHNICITY

County-level rates of Hispanic children come from 5-year estimates of the U.S. Census for children under age 5. From 2007 to 2011, an estimated 17% of children under age 5 in Oklahoma were Hispanic. Although this is lower than the national rate of 29%, six counties are higher than the national average, and a total of 18 counties are above the state average.

As demonstrated in Table 6, rates of Hispanic children range from a high of 59% in Texas County to a low of 3% in McIntosh County, with Haskell County at the median (9%). As Map 2 shows, the greatest concentrations of Hispanic children are in the western part of the state, particularly northwestern and southwestern Oklahoma. High concentrations are also found in west-central counties as well as the eastern counties of Tulsa and LeFlore.

Map 2: Hispanic ethnicity



Note: Color coding represents risk classification on the Hispanic ethnicity variable

2. ENGLISH-LANGUAGE LEARNERS

Living in homes where little to no English is spoken places children at an extreme disadvantage for language development.^{17,19,20} According to the Oklahoma State Department of Education, approximately 11% of children in pre-kindergarten and kindergarten in 2011–2012 were English-language learners.

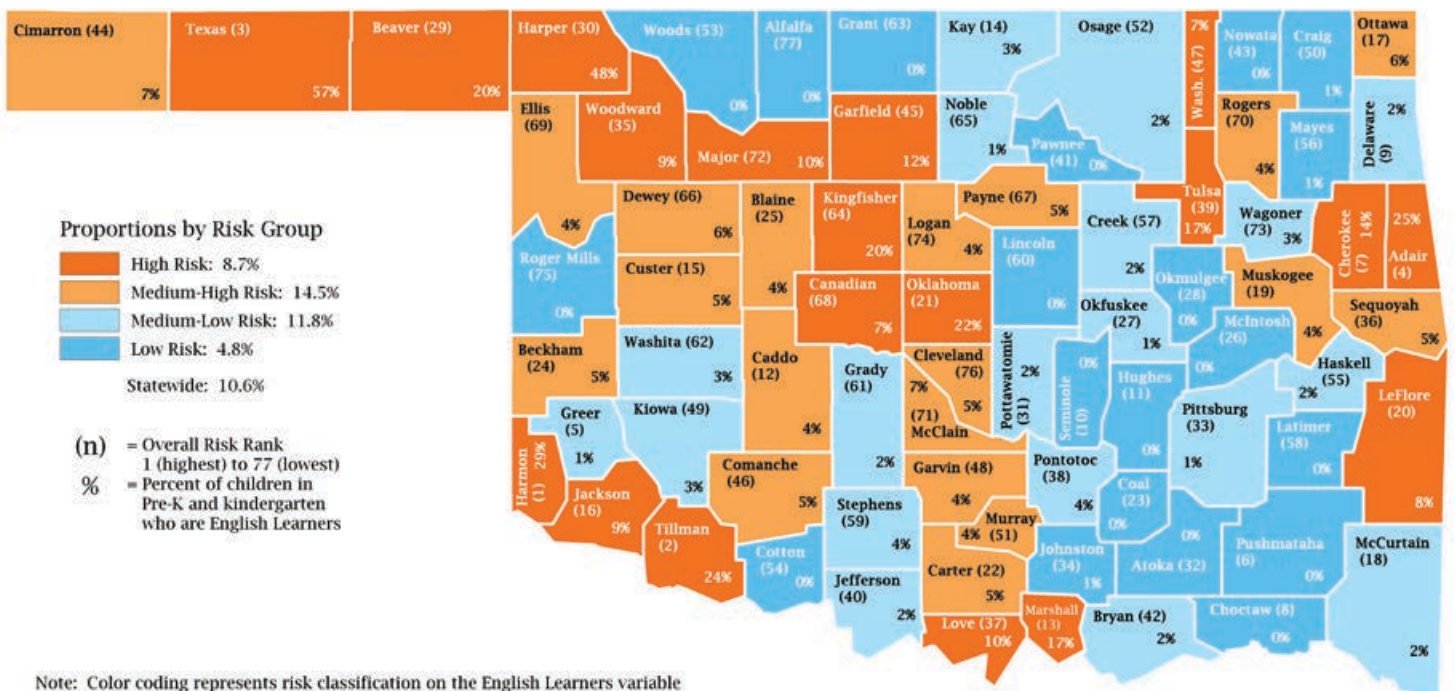
As demonstrated in Table 7, rates of ELL pre-kindergartners and kindergartners range from a high of 57% in Texas to a low of 0.4% in Okmulgee, with Rogers County at the median (4.5%). The median excludes 16 counties with no young ELL children. Ten counties are higher than the estimated national rate of 16%. With the fourth highest rate of ELL children at 25%, Adair County deviates from the relationship between Hispanic and ELL with Hispanic children comprising 14% of those under age 5 compared to 42% for American Indian children. This is the only county that follows this trend. As Map 3 shows, the greatest concentrations of ELL children are in western Oklahoma, particularly the panhandle and west-central Oklahoma. High concentrations are also found in southwestern Oklahoma and eastern counties.

Table 7. Rank and rate of pre-kindergarten and kindergarten English learners (AY 2011–2012)

Rank	County	Percent
1	Texas	57.0
2	Harper	47.6
3	Harmon	29.0
4	Adair	24.6
5	Tillman	24.0
6	Oklahoma	22.0
7	Beaver	20.1
8	Kingfisher	19.6
9	Tulsa	17.5
10	Marshall	17.2
31	Rogers	4.5
52	Pottawatomie	1.6
53	Creek	1.5
54	Greer	1.4
55	Noble	1.3
56	Pittsburg	1.3
57	Okfuskee	0.9
58	Johnston	0.7
59	Mayes	0.5
60	Craig	0.5
61	Okmulgee	0.4

Note: All other counties were 0%.

Map 3: English-language learners



3. LOW MATERNAL EDUCATION

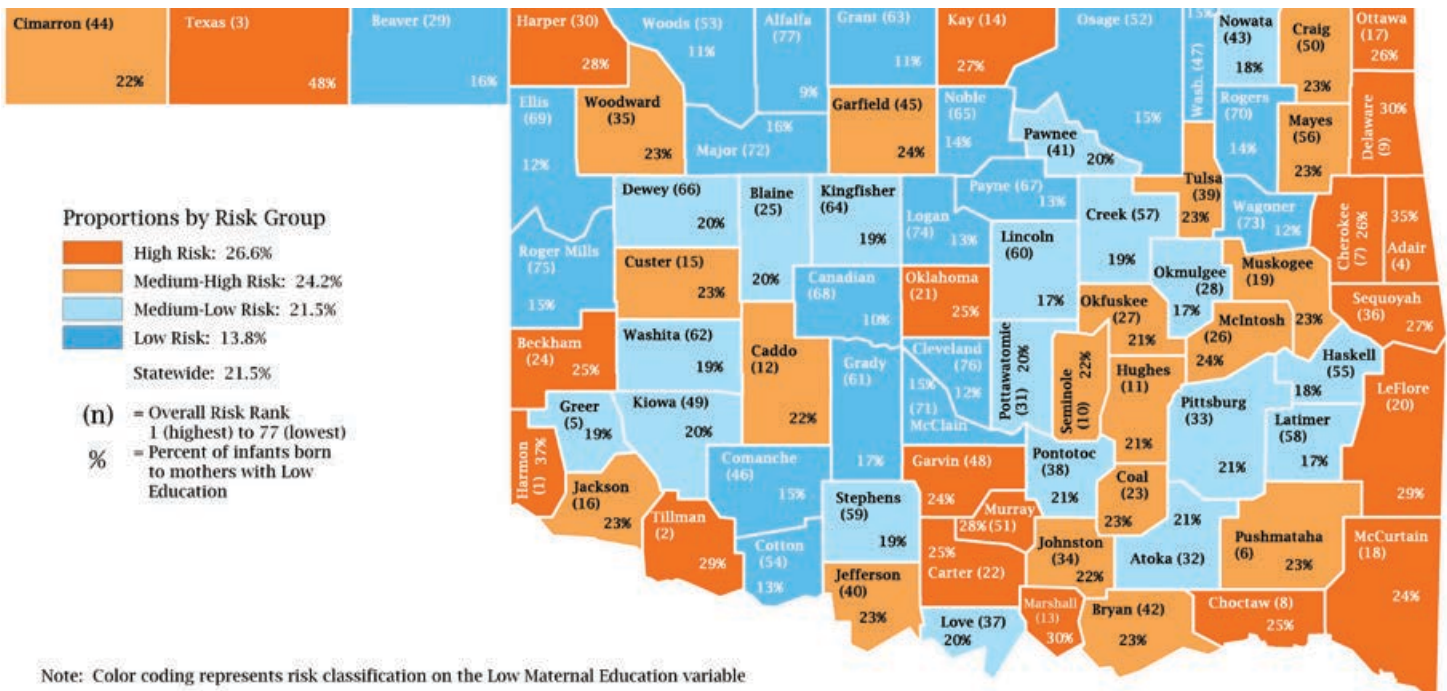
Hispanic children in Oklahoma are more likely than American Indian or African American children to have a mother with a low level of education, which reflects the national trend.²¹ Associated with low rates of enrollment in early childhood education programs, young maternal age and poor prenatal care, low maternal education is one of the most important variables that explains gaps in young children's academic performance.^{22,23,24,25}

The most recent county-level data for low maternal education is from 2009 and come from the Oklahoma State Department of Health. For 2008 and 2009, the state average was comparable to the nation (22%). Thirty-six (36) counties had rates higher than the nation, with five at or above 30%. As demonstrated in Table 8, rates range from a high of 48% in Texas County to a low of 9% in Alfalfa County, with Pontotoc County at the median (21%). As Map 4 shows, the greatest concentrations of infants born to mothers with low maternal education are along the state's eastern border, with high concentrations also found in south-central and southwestern counties.

Table 8. Rank and rate of births to mothers with less than high school diploma (2008 & 2009 avg)

Rank	County	Percent
1	Texas	48.2
2	Harmon	37.3
3	Adair	34.8
4	Marshall	30.2
5	Delaware	29.6
6	Tillman	28.7
7	Le Flore	28.6
8	Murray	28.1
9	Harper	27.8
10	Sequoyah	27.1
39	Pontotoc	21.2
68	Logan	13.1
69	Payne	12.8
70	Cotton	12.8
71	Ellis	12.2
72	Wagoner	12.0
73	Cleveland	11.9
74	Woods	11.3
75	Grant	11.1
76	Canadian	10.4
77	Alfalfa	8.8

Map 4: Low maternal education



4. MIGRANT CHILDREN

Although not statistically part of the Hispanic Background component, being the child of a migrant parent is another important school readiness risk factor. Of all major groups in the nation, migrant workers are recognized as the most poorly educated, with many speaking little to no English.²⁶ Poverty is endemic among migrant families, with migrant children lacking continuity of schooling and being significantly behind in academic development.^{27,28,29} Among racial and ethnic groups, Hispanic children are the most likely to be eligible for the federally funded Migrant Education Program (MEP).

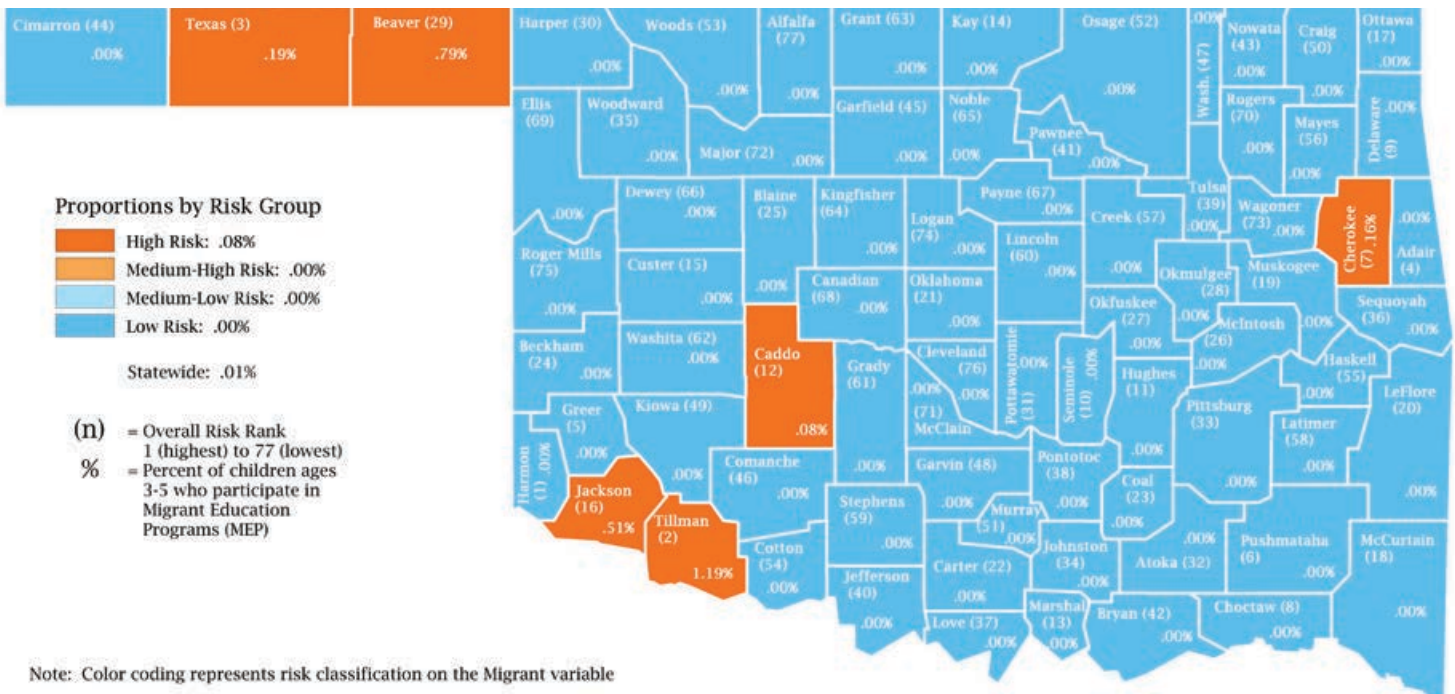
In 2010–2011, 0.4% of the nation’s 3 to 5 year olds were served by the MEP. In 2009–2010, six Oklahoma counties served young children in the MEP. Three counties exceed the national rate, with Tillman County (1.2%) having the highest rate, followed by Beaver (0.8%) and Jackson (0.5%) counties. Two counties (Texas and Cherokee) have rates of approximately 0.2%, and Caddo County (0.08%), has the lowest rate. As Map 5 shows, the greatest concentration of MEP children is in southwestern Oklahoma.

Table 9. Rank and rate of 3 to 5 year olds served by Migrant Education Program (AY 2009–2010)

Rank	County	Percent
1	Tillman	1.19
2	Beaver	0.79
3	Jackson	0.51
4	Texas	0.19
5	Cherokee	0.16
6	Caddo	0.08

Note: All other counties were 0%.

Map 5: Children in Migrant Education Program



FAMILY STRUCTURE AND ECONOMIC DISTRESS

This component represents risk associated with being born to a teenage mother, having a single-parent, and being of American Indian or Alaska Native race, all of which are highly related to poverty.^{7,30}

In Oklahoma, the correlation between race/ethnicity and poverty is considerably higher for American Indian than for Hispanic.

Table 10 lists the 20 counties with the highest and lowest scores on this component. Higher scores represent higher risk and mean that counties have large percentages of children who live in poverty, were born to teenage mothers, have single parents, and are American Indian. Scores range from a high of 1.64 for Delaware County to a low of -1.48 for Major County, with Beckham County at the median (-0.08). Maps 6 through 9 show indicator rates by county and by risk group. Counties classified as High Risk have the greatest percent of children for each risk factor, with rates considerably higher than state averages.

Table 10. Rank and score on the Family Structure and Economic Distress component

Rank	County	Score
1	Delaware	1.638
2	Pushmataha	1.463
3	Hughes	1.383
4	Cherokee	1.297
5	Choctaw	1.293
6	Adair	1.291
7	Harmon	1.11
8	Ottawa	1.091
9	Kay	1.082
10	McCurtain	1.068
39	Beckham	-0.080
68	Beaver	-0.734
69	Woods	-0.756
70	Payne	-0.833
71	McClain	-0.983
72	Canadian	-1.139
73	Logan	-1.193
74	Cleveland	-1.226
75	Kingfisher	-1.287
76	Alfalfa	-1.342
77	Major	-1.480

Figure 4: Indicators used to measure Family Structure and Economic Distress component



5. CHILDREN IN POVERTY

Poverty is one of the strongest predictors of adverse child outcomes, including low academic skills at kindergarten entry.³¹ Children in poverty are three times more likely than those not in poverty to be born to an unmarried teenager; twice as likely to be retained a grade in school or to drop out of school; and nearly seven times as likely to experience child abuse and neglect.⁷

Data on poverty, defined as children under age 6 living at less than 100% of the federal poverty level, come from the U.S. Census. At 27% of young children in poverty, Oklahoma exceeds the national rate of 23%. Of Oklahoma counties, 54 have child poverty rates higher than the nation, with four counties at or above 50% (Harmon, Pushmataha, Cimarron and Hughes). As demonstrated in Table 11, rates range from a high of 55% in Harmon County to a low of 11% in Kingfisher County, with Tulsa County at the median (27%). As Map 6 shows, the greatest concentrations of children in poverty are in eastern Oklahoma, particularly east-central, southeast and northeast counties, with pockets of concentrations in north central, southwest, panhandle areas.

Table 11. Rank and rate of young children living under 100% of federal poverty level (2007–2011)

Rank	County	Percent
1	Harmon	54.9
2	Pushmataha	54.1
3	Cimarron	51.4
4	Hughes	49.6
5	Tillman	46.4
6	Cherokee	46.1
7	Delaware	46.1
8	Coal	45.5
9	McCurtain	43.8
10	Pawnee	42.2
39	Tulsa	27.0
68	Woods	16.9
69	Logan	16.2
70	Cleveland	14.8
71	Rogers	14.1
72	Haskell	13.8
73	Dewey	13.7
74	Major	13.7
75	Craig	11.8
76	Canadian	11.1
77	Kingfisher	11.0

Map 6: Children in poverty

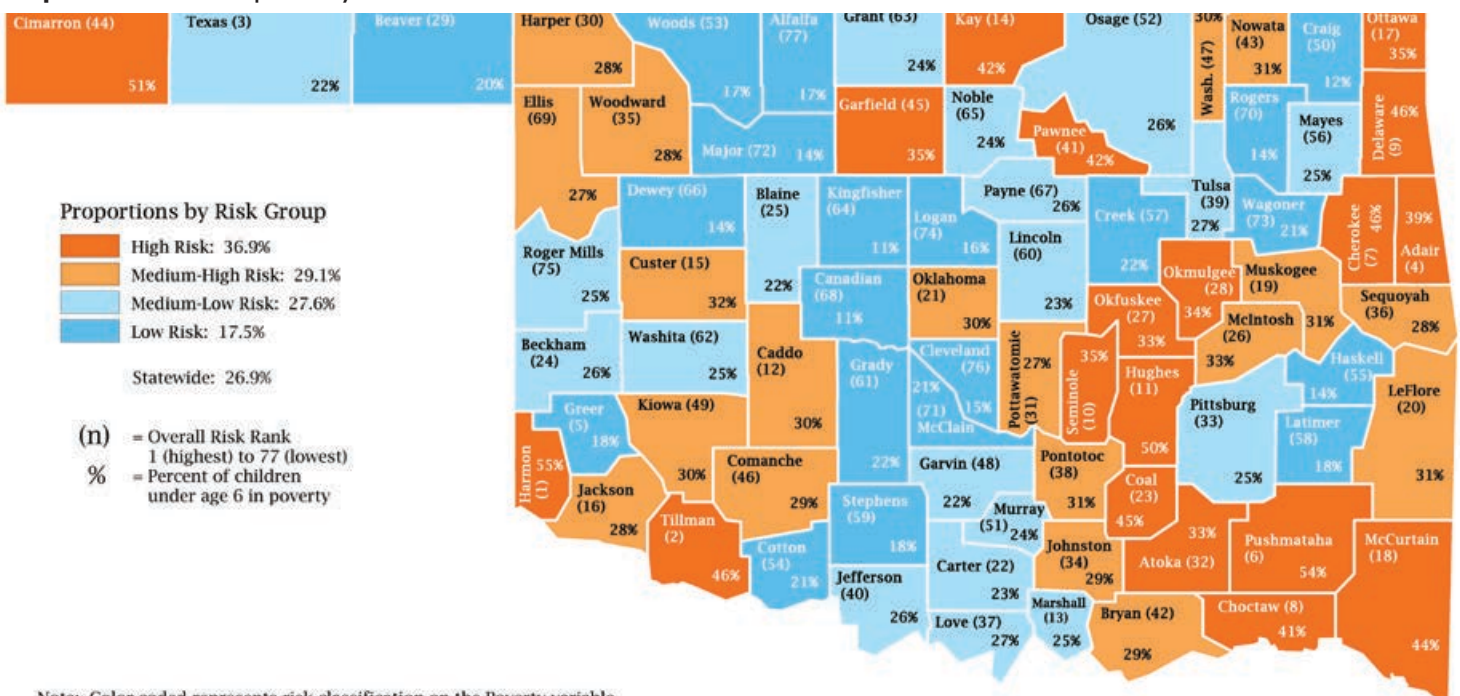


Table 12. Rank and rate of young children with single parents (2007–2011)

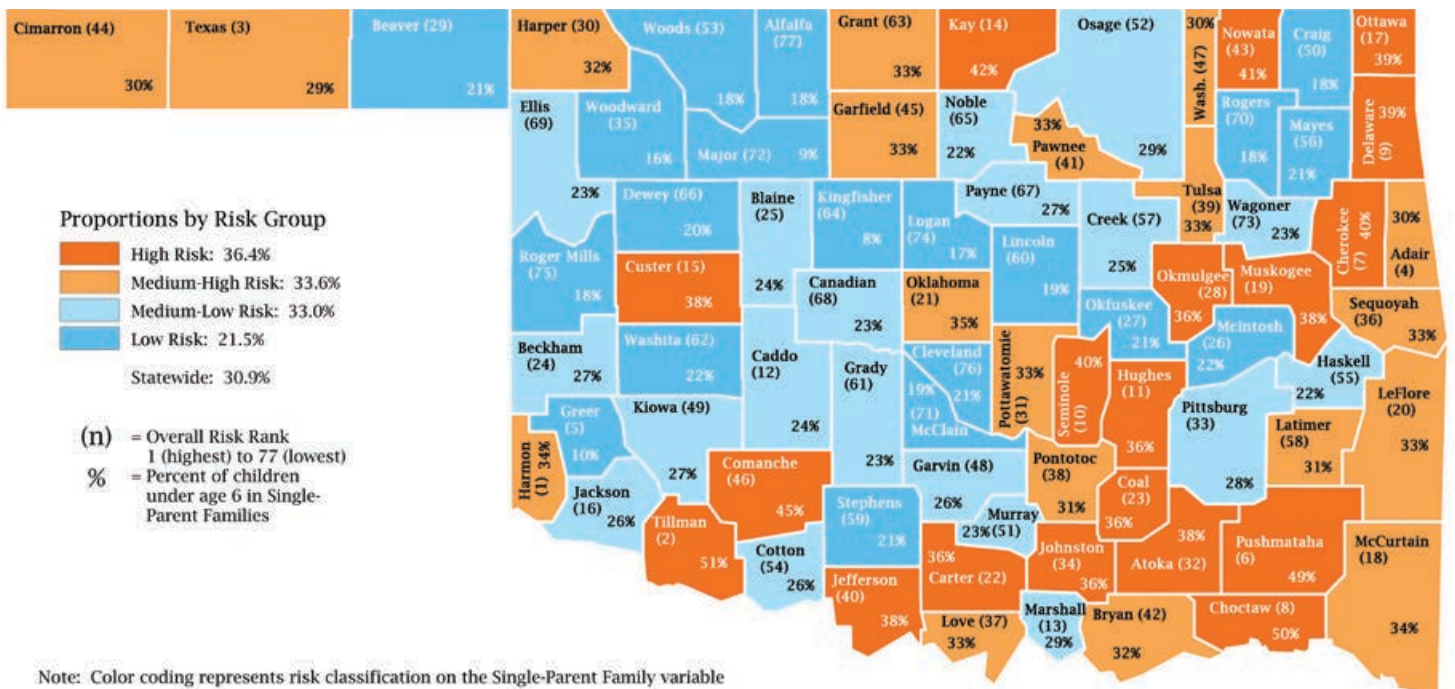
Rank	County	Percent
1	Tillman	50.9
2	Choctaw	50.0
3	Pushmataha	49.1
4	Comanche	44.9
5	Kay	42.2
6	Nowata	41.0
7	Seminole	39.6
8	Cherokee	39.6
9	Delaware	38.9
10	Ottawa	38.8
39	Osage	28.6
68	Craig	18.0
69	Rogers	17.8
70	Alfalfa	17.7
71	Woods	17.6
72	Roger Mills	17.6
73	Logan	16.6
74	Woodward	16.2
75	Greer	10.3
76	Major	8.7
77	Kingfisher	7.6

6. CHILDREN WITH SINGLE PARENTS

Factors associated with being from a single-parent family, such as poverty and decreased parent/child interaction, place children at high risk of delayed social and academic development.⁷ Of single parents, most are mothers, and research shows that households headed by single mothers are more likely to be impoverished than two-parent households.³²

Data for children under age 6 living with single parents come from the U.S. Census. At 31%, Oklahoma exceeds the national rate of nearly 29%. Rates of young children with single parents exceed the nation for 38 counties, with eight counties at or above 40%. As demonstrated in Table 12, rates of children with single parents range from a high of 51% in Tillman County to a low of 8% in Kingfisher County, with Osage County at the median (29%). As Map 7 shows, the greatest concentrations of children with single parents are in southern and eastern Oklahoma, in particular south and east central, southeastern and northeastern counties. Pockets of concentrations are also found in southwestern and north- and west-central counties.

Map 7: Children with single parents



7. YOUNG MATERNAL AGE

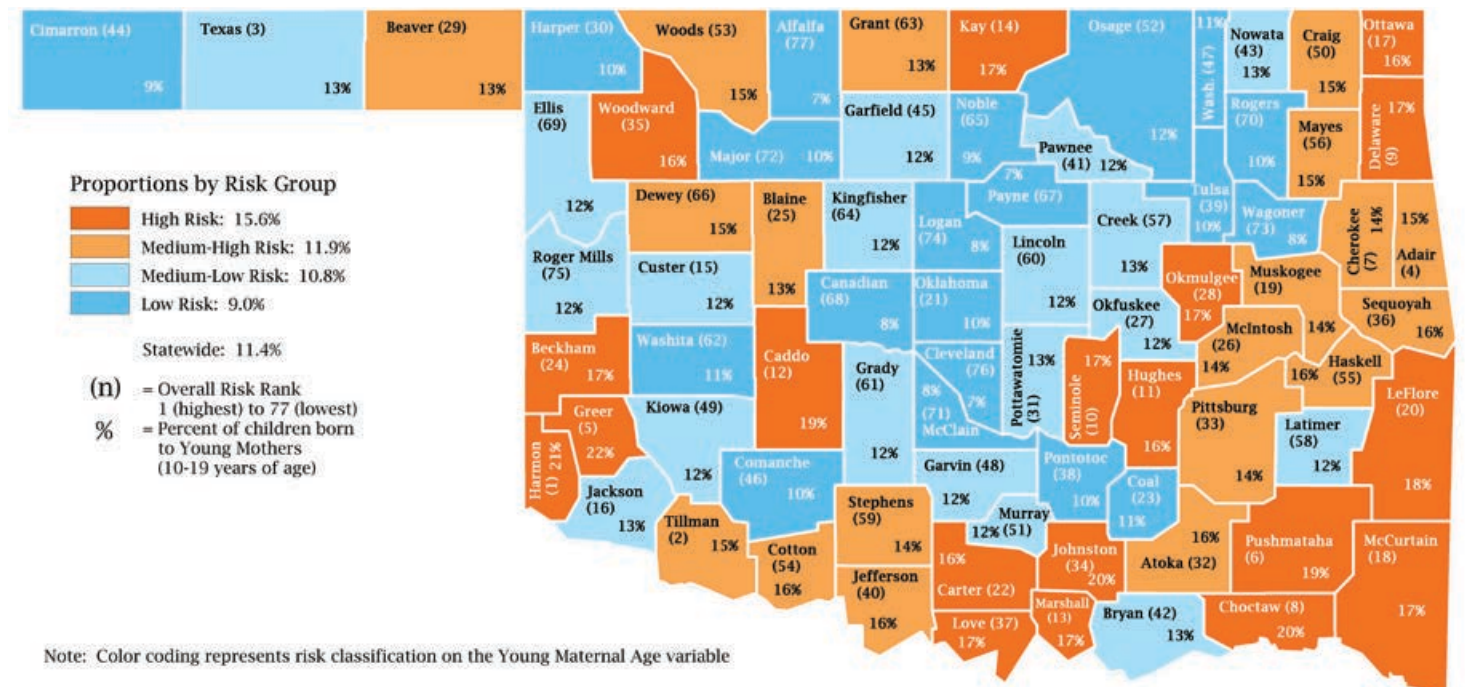
As of 2010, Oklahoma was among the top five states in terms of births to teenage mothers.³³ Having a teen mother exacerbates risks for poor school readiness and creates a cycle of poverty as opportunities for a mother to advance her education are limited. Teenage mothers are considerably less likely to earn a high school diploma by age 22 than their non-maternal peers, and negative birth outcomes are more likely among teen pregnancies.^{34, 35, 36}

According to the Oklahoma State Department of Health, the rate of live births to teenage mothers averaged 11% from 2011 to 2012, a decline in the overall trend of 14% from 2007 to 2010 but still greater than the national rate of 9%. As demonstrated in Table 13, rates of infants born to teen mothers range from a high of 22% in Greer to a low of 7% in Alfalfa, with Pottawatomie County at the median (13%). As Map 8 shows, the greatest concentrations of infants born to teen mothers are in southeastern, south-central, and southwestern Oklahoma, with pockets of concentrations in the northeast, north-central and northwest.

Table 13. Rank and rate of births to teenage mothers (2011 & 2012 avg)

Rank	County	Percent
1	Greer	22.0
2	Harmon	21.1
3	Johnston	20.0
4	Choctaw	19.5
5	Caddo	18.8
6	Pushmataha	18.6
7	Le Flore	18.0
8	Delaware	17.4
9	McCurain	17.4
10	Love	17.1
39	Pottawatomie	13.3
68	Major	9.9
69	Cimarron	9.2
70	Noble	9.1
71	McClain	8.4
72	Wagoner	7.9
73	Canadian	7.8
74	Logan	7.7
75	Cleveland	6.9
76	Payne	6.8
77	Alfalfa	6.8

Map 8: Young maternal age



8. AMERICAN INDIAN RACE

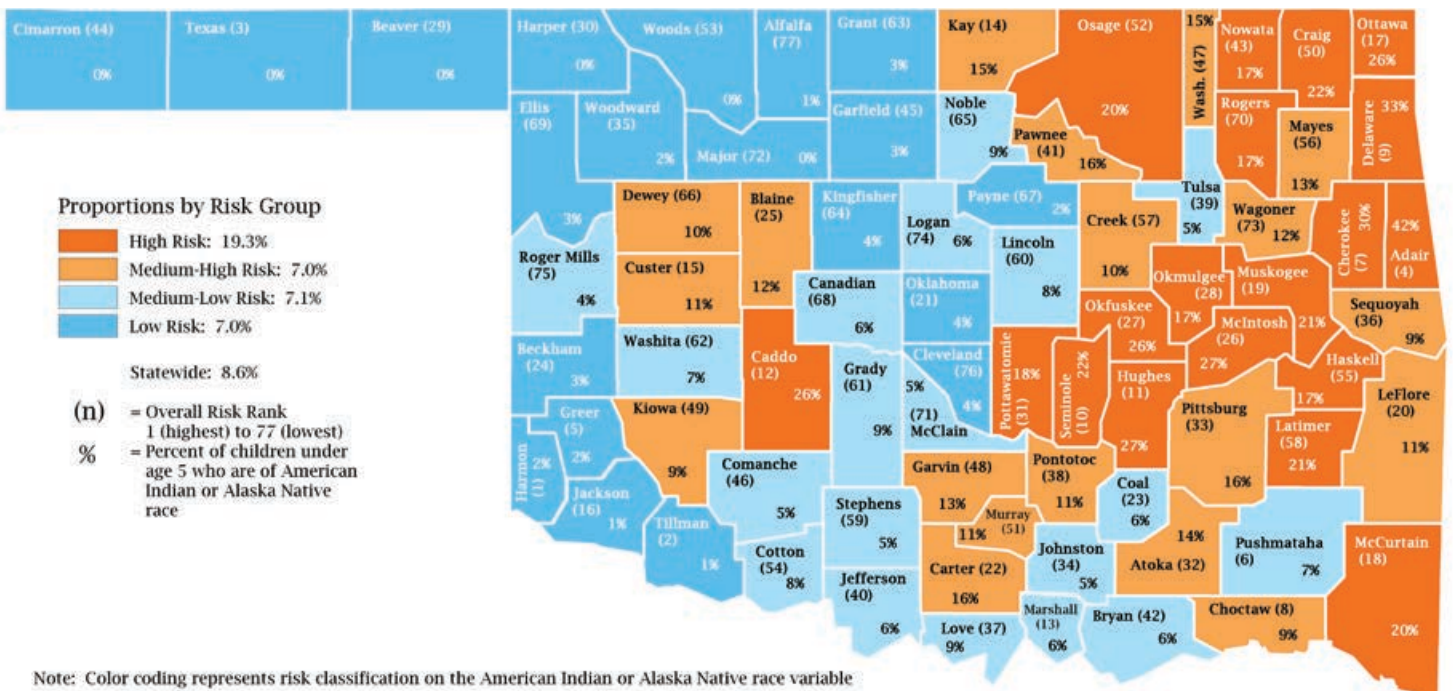
American Indian/Alaska Native children are likely to experience numerous school readiness risk factors. Nationally, they are one of the most overrepresented racial/ethnic groups in foster care, the least represented in early childhood education programs, and experience high rates of learning disabilities.^{37, 38,}
³⁹ In Oklahoma, American Indian children are more likely than Hispanic or African American children to live in poverty and have a teen mother.

According to data from the U.S. Census, Oklahoma has one of the highest rates of American Indian children under age 5 at 9%. American Indian children comprise 10% or more of all young children in nearly half of the state's counties. As demonstrated in Table 14, rates range from a high of 42% in Adair to a low of 0.4% in Texas County, with Choctaw at the median (9%). The median excludes five counties with no young American Indian children. As Map 9 shows, the greatest concentrations are in eastern Oklahoma, particularly the northeast and east-central, with pockets of high concentrations in southeastern and west-central counties.

Table 14. Rank and rate of children under age 5 who are American Indian (2007–2011)

Rank	County	Percent
1	Adair	41.5
2	Delaware	33.5
3	Cherokee	30.0
4	Hughes	26.7
5	McIntosh	26.6
6	Ottawa	26.3
7	Okfuskee	26.1
8	Caddo	26.1
9	Craig	21.8
10	Seminole	21.8
37	Choctaw	9.3
63	Grant	2.6
64	Garfield	2.6
65	Greer	2.5
66	Woodward	2.4
67	Payne	2.2
68	Harmon	1.8
69	Alfalfa	1.1
70	Jackson	1.1
71	Tillman	0.5
72	Texas	0.4

Map 9: American Indian race



CHILDREN IN CHILD WELFARE

This component represents risk associated with having an abusive and/or neglectful family environment, which may result in foster care placement. Children in abusive and neglectful environments are at an elevated risk for slowed brain development and poor academic performance.^{7,40} Among all SRRRI risk factors, abuse and neglect and entering protective custody are most strongly correlated with being born to a teenage mother.

Table 15 lists the 20 counties with the highest and lowest scores on this component. Higher scores represent higher risk and mean counties have the greatest percentages in the state of children who have been confirmed as suffering abuse or neglect and who have been placed in foster care. Scores range from a high of 4.40 for Greer to a low of -1.53 for Tillman, with Osage County at the median (-0.17). Maps 10 and 11 show indicator rates by county and by risk group. The rates of children between infancy and age 5 who are victims of abuse and neglect are greatest in High and High-Medium Risk counties, while High-Medium Risk counties have the highest rate of young children in foster care.

Table 15. Rank and score on the Children in Child Welfare component

Rank	County	Score
1	Greer	4.396
2	Woods	1.965
3	Blaine	1.823
4	Harmon	1.657
5	Coal	1.559
6	Beckham	1.531
7	Seminole	1.527
8	Pushmataha	1.270
9	Okfuskee	1.113
10	Pittsburg	0.930
39	Osage	-0.174
68	Alfalfa	-0.941
69	Cleveland	-0.957
70	Washita	-0.986
71	Kingfisher	-1.097
72	Ellis	-1.103
73	Beaver	-1.145
74	Roger Mills	-1.356
75	Harper	-1.360
76	Dewey	-1.445
77	Tillman	-1.525

Figure 5: Indicators used to measure Children in Child Welfare Component



9. ABUSE AND NEGLECT

Chronic stress from exposure to abuse and neglect presents serious risk factors for poor school readiness. Adults who were abused or neglected as children have lower IQ scores and increased risk of dropping out of school than those with nurturing childhood environments.^{41,42,43}

According to DHS, in state fiscal year 2012, 52 counties had rates of abuse and neglect among children under age 6 higher than the nation (1.3%), and 14 counties had rates of 3.0% or more. As demonstrated in Table 16, rates range from a high of 8.2% in Greer County to a low of 0.3% in Washita County, with Osage County at the median (1.8%). The median excludes two counties with no confirmed cases of abuse and neglect among young children. As Map 10 shows, the greatest concentrations of young children suffering abuse and neglect are in east-central and southeastern Oklahoma, with pockets of high concentrations in the southwest, west-central and northwestern parts of the state.

Table 16. Rank and rate of DHS confirmed abuse & neglect for children under 6 (SFY 2012)

Rank	County	Percent
1	Greer	8.22
2	Coal	4.76
3	Seminole	4.54
4	Okfuskee	3.53
5	Harmon	3.53
6	Woods	3.46
7	Blaine	3.44
8	Beckham	3.38
9	Pushmataha	3.37
10	Pittsburg	3.20
38	Osage	1.80
66	Love	0.89
67	Murray	0.87
68	Rogers	0.80
69	Garfield	0.77
70	Ottawa	0.75
71	Cleveland	0.75
72	Cimarron	0.54
73	Roger Mills	0.36
74	Harper	0.36
75	Washita	0.31

Map 10: Abuse and neglect

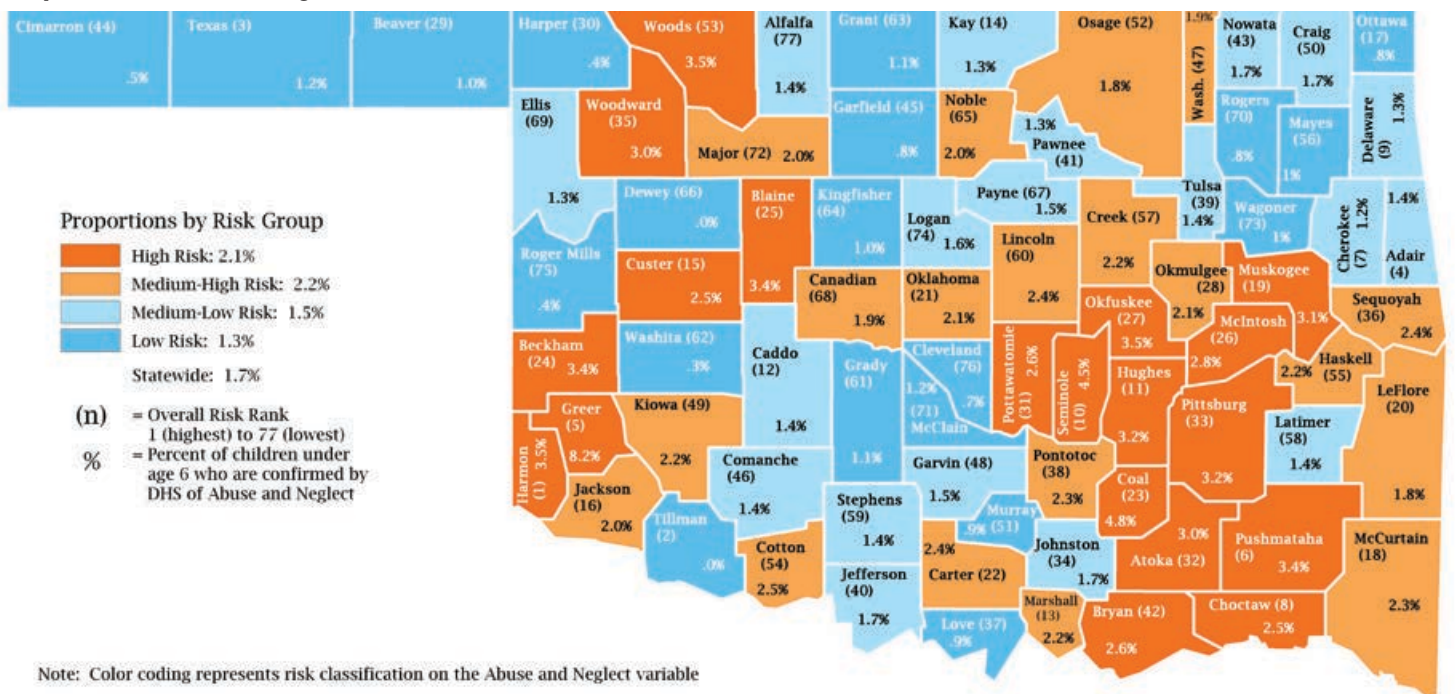


Table 17. Rank and rate of children under age 6 in DHS protective custody (SFY 2012)

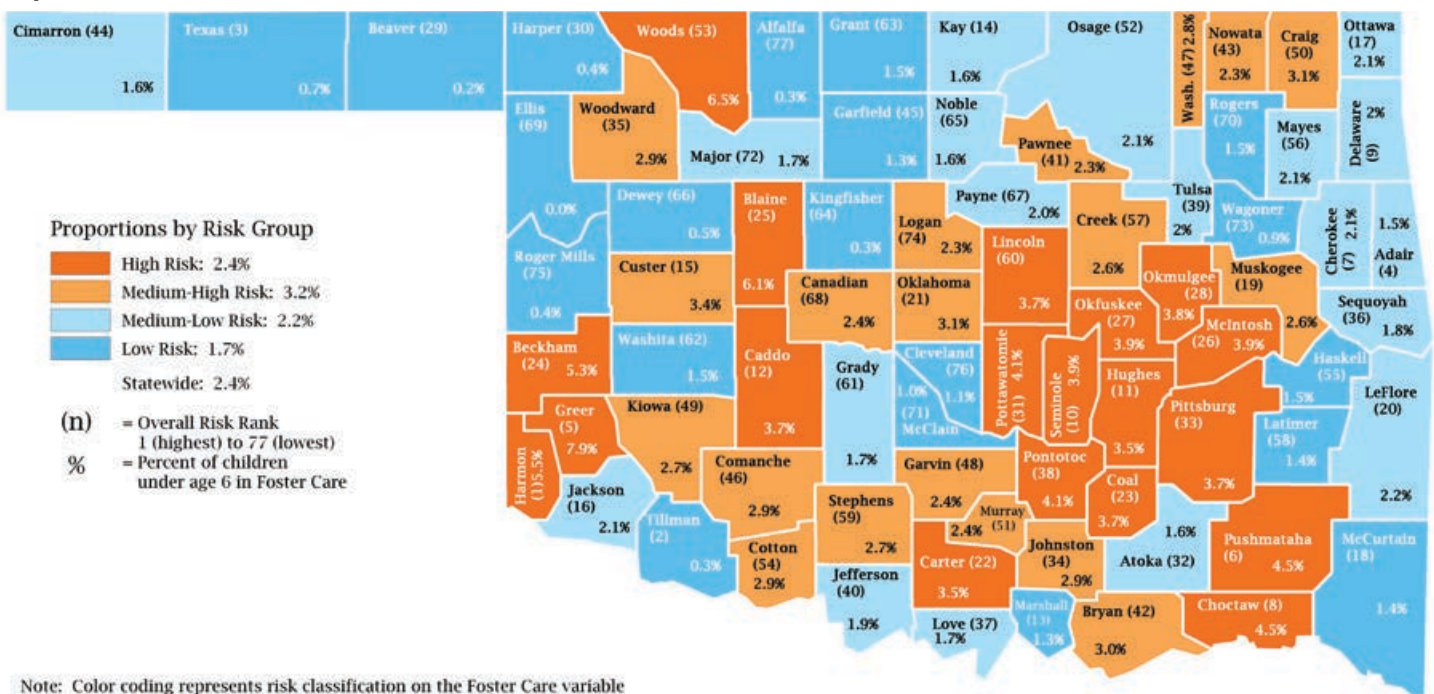
Rank	County	Percent
1	Greer	7.93
2	Woods	6.50
3	Blaine	6.09
4	Harmon	5.49
5	Beckham	5.30
6	Pushmataha	4.53
7	Choctaw	4.49
8	Pottawatomie	4.11
9	Pontotoc	4.09
10	McIntosh	3.89
39	Le Flore	2.20
68	Wagoner	0.87
69	Texas	0.67
70	Dewey	0.54
71	Roger Mills	0.36
72	Harper	0.35
73	Alfalfa	0.35
74	Kingfisher	0.34
75	Tillman	0.30
76	Beaver	0.24
77	Ellis	0.00

10. FOSTER CARE

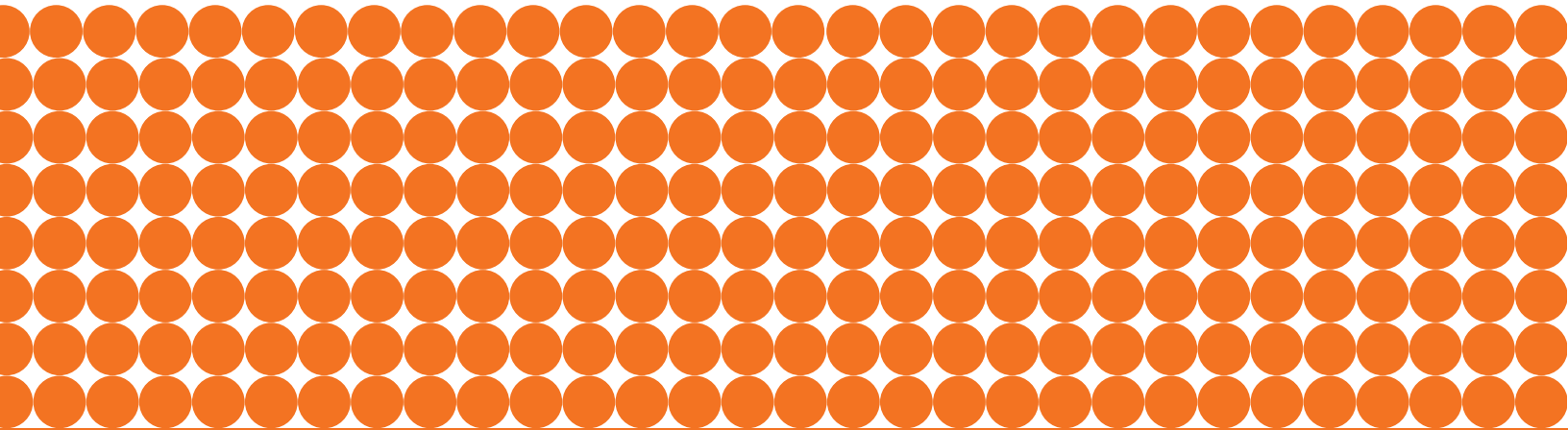
Foster care placement is predicated by severe child abuse and neglect, and is most prominent among the poor and racial/ethnic minorities.^{44,45,46,47,48} Several studies have demonstrated a strong relationship between foster care placement, health problems and developmental delays, and poor academic outcomes.^{49,50,51} These issues are further exacerbated with multiple foster care placements.⁵²

In Oklahoma, children under age 6 comprised more than half (54%) of all children placed in foster care in state fiscal year 2012, compared to 39% for the nation. According to DHS, all but eight counties had rates of young children in foster care higher than the nation, with 23 counties at or above 3%. As demonstrated in Table 17, rates range from a high of 7.9% in Greer County to no foster care placements in Ellis County, with Le Flore County at the median (2.2%). As Map 11 shows, the greatest concentrations of young children in protective custody are in east-central Oklahoma, with pockets of high concentrations in the southwest, west-central and northwest regions.

Map 11: Foster care



EARLY CHILDHOOD PROGRAMS AND SERVICES: Reach Index Results



Without adequate education and support, children facing early academic challenges are likely to experience poor educational and employment outcomes. Comparing overall risk for poor school readiness to the percent of eligible children reached by quality programs highlights counties with the greatest need for early childhood education, home visitation, and child care services.

About half of High Risk counties have among the highest rates of reach; another fourth have overall low reach; and the remaining fourth have medium reach rates.

OVERALL REACH

There is a positive and statistically significant relationship between reach and risk, with overall reach increasing by risk group.^f The highest overall reach is among High Risk counties, with 47% in the High Reach group, compared to 25% of counties statewide (Table 18). Table 19 lists the 20 counties with the highest and lowest scores on the overall Reach Index. As Map 12 shows, counties with the highest overall reach are concentrated in southeastern Oklahoma, with pockets of concentrations in the northeast and southwest.

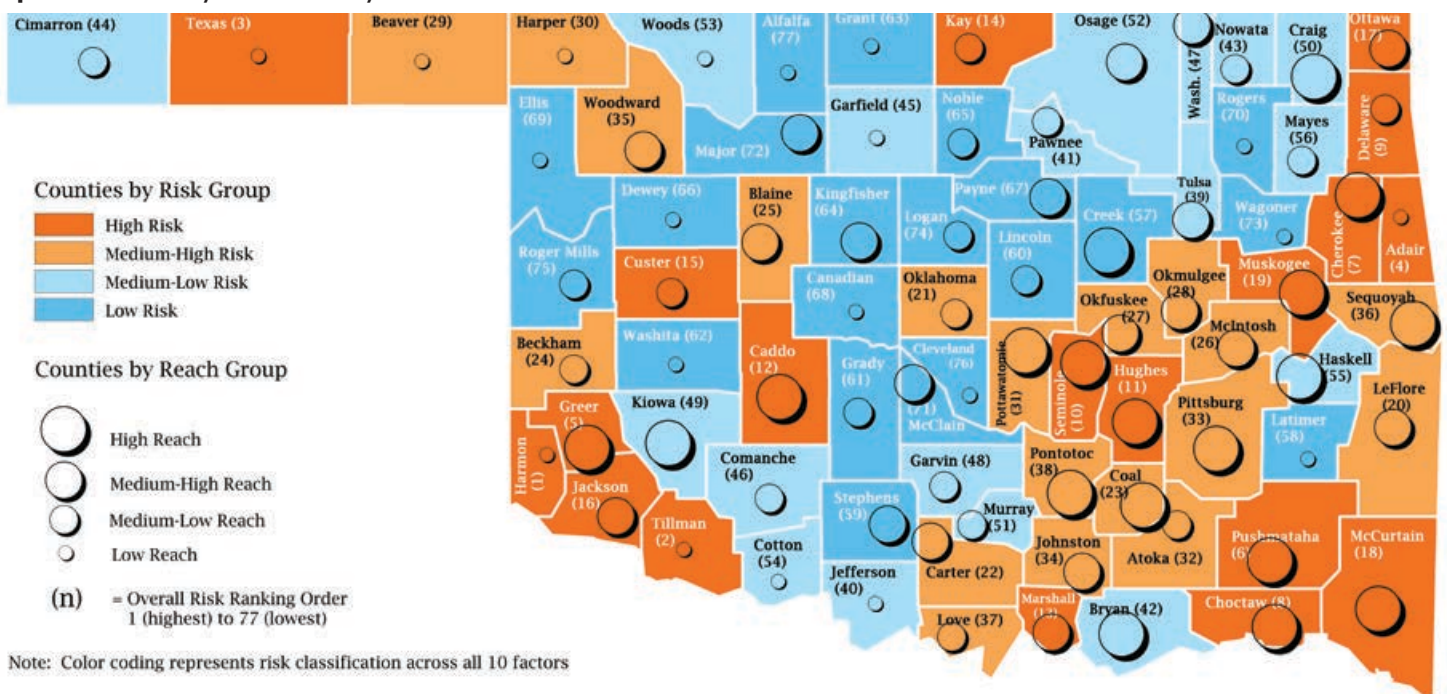
Table 18. Percent of counties by risk and overall reach

Overall Reach-by-Risk					
Risk	Reach	Low	Medium-Low	High-Medium	High
	High	21%	16%	16%	47%
High-Medium	11%	21%	42%	22%	5%
Medium-Low	22%	39%	17%	22%	5%
Low	48%	24%	24%	5%	25%
State Total		26%	25%	25%	25%

Table 19. Rank and score on the overall Reach Index (Higher scores = higher reach)

Reach Rank	County	Risk Group	Reach Score
1	Caddo	High	0.687
2	Kiowa	Med-Low	0.657
3	Coal	High-Med	0.653
4	Choctaw	High	0.625
5	Greer	High	0.625
6	Bryan	Med-Low	0.578
7	Pontotoc	High-Med	0.537
8	Creek	Low	0.487
9	Pottawatomie	High-Med	0.444
10	Pittsburg	High-Med	0.417
39	Delaware	High	0.034
68	Woods	Med-Low	-0.464
69	Harmon	High	-0.466
70	Harper	High-Med	-0.471
71	Washita	Low	-0.511
72	Grant	Low	-0.524
73	Wagoner	Low	-0.813
74	Ellis	Low	-0.861
75	Beaver	High-Med	-0.871
76	Texas	High	-0.885
77	Dewey	Low	-1.146

Map 12: Reach-by-Risk county classifications



EDUCATION REACH

Examining education programs only (HS/EHS and pre-kindergarten), there is a positive and statistically significant correlation between reach and risk, with education reach increasing by risk group.⁹ Indicators on enrollment data for the following programs were included in the education Index calculation: HS, EHS, pre-K 3 year olds, pre-K 4 year olds, and pre-K full-day attendance.

The highest education reach is among High Risk counties, with 53% in the High Reach group, compared to 25% of counties statewide (Table 20). Table 21 lists the 20 counties with the highest and lowest scores on the education Reach Index. The highest education reach is in High Risk Greer County (reach score=1.212), with the lowest in Low Reach Wagoner County (reach score=-1.469). Low Risk Roger Mills is at the median.

Table 20: Percent of counties by risk and education reach

Education Reach-by-Risk					
Risk	Reach	Low	Medium-Low	High-Medium	High
	High	16%	16%	16%	53%
High-Medium	21%	21%	42%	16%	
Medium-Low	28%	28%	22%	22%	
Low	38%	33%	19%	10%	
State Total	26%	25%	25%	25%	

Table 21. Rank and score on the education Reach Index (Higher scores = higher reach)

Reach Rank	County	Risk Group	Reach Score
1	Greer	High	1.212
2	Pushmataha	High	1.047
3	Cimarron	Med-Low	1.023
4	Seminole	High	0.953
5	Choctaw	High	0.908
6	Coal	High-Med	0.855
7	Caddo	High	0.696
8	Adair	High	0.631
9	Muskogee	High	0.603
10	Sequoyah	High-Med	0.578
39	Roger Mills	Low	0.065
68	Comanche	Med-Low	-0.718
69	Rogers	Low	-0.766
70	Canadian	Low	-0.808
71	Harper	High-Med	-0.831
72	Logan	Low	-0.872
73	Oklahoma	High-Med	-0.995
74	Dewey	Low	-1.030
75	Texas	High	-1.148
76	Cleveland	Low	-1.459
77	Wagoner	Low	-1.469



HEAD START/EARLY HEAD START

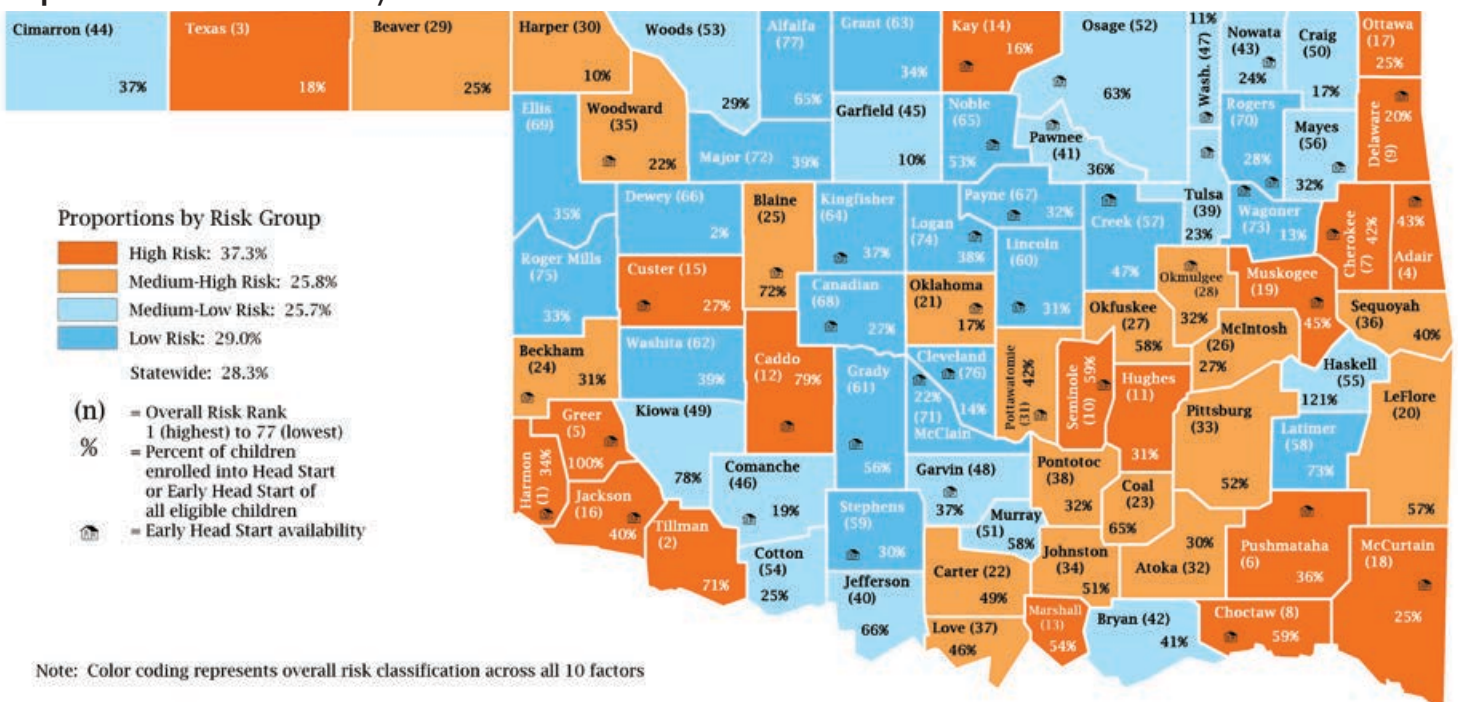
Early Head Start (EHS) programs provide comprehensive services for children under age 3 and pregnant women, while Head Start (HS) serves children ages 3 to 5.⁵³ Participation is free for families with incomes below 100% of the federal poverty level, with the exception of some vulnerable populations. HS and EHS services are offered on a full- and half-day basis in centers, elementary schools or family homes, or through a weekly home visits. Both programs require minimum qualifications for teachers as well as performance standards for curricula. They are funded through the federal Office of HS and the Oklahoma State Legislature, are administered on a local level, and must be licensed by the state.

During 2012–2013, 36 organizations, including 14 American Indian programs,⁵⁴ served approximately 17,520 children through HS in all 77 counties and 2,572 children in EHS in 41 counties. As Map 13 shows, High Risk counties served a considerably greater proportion of children in HS and EHS than all other risk groups.^h Medium-Low Risk Haskell County and High Risk Greer County served the highest rate of children in both programs (100%), while Low Risk Dewey County served the lowest (2%) (Table 22).

Table 22. Rank and rate of children reached by Head Start/Early Head Start (Higher scores = higher reach)

Reach Rank	County	Risk Group	Percent
1 (tie)	Haskell	Med-Low	100.0
1 (tie)	Greer	High	100.0
2	Caddo	High	79.0
3	Kiowa	Med-Low	77.5
4	Latimer	Low	73.0
5	Blaine	High-Med	72.1
38	Pawnee	Med-Low	35.5
72	Wagoner	Low	13.3
73	Washington	Med-Low	10.9
74	Garfield	Med-Low	10.1
75	Harper	High-Med	9.5
76	Dewey	Low	2.4

Map 13: Head Start and Early Head Start reach



OKLAHOMA UNIVERSAL PRE-KINDERGARTEN

The Oklahoma State Department of Education is responsible for the state's publicly funded universal pre-kindergarten (pre-K) program. Oklahoma's program is unique in that it does not have eligibility criteria. The program provides an early childhood baccalaureate degreed teacher for every 10 children, full- or half-day programs, and curricula that meet state standards. The program also partners with child care centers to place pre-K teachers in child care classrooms.⁵⁵

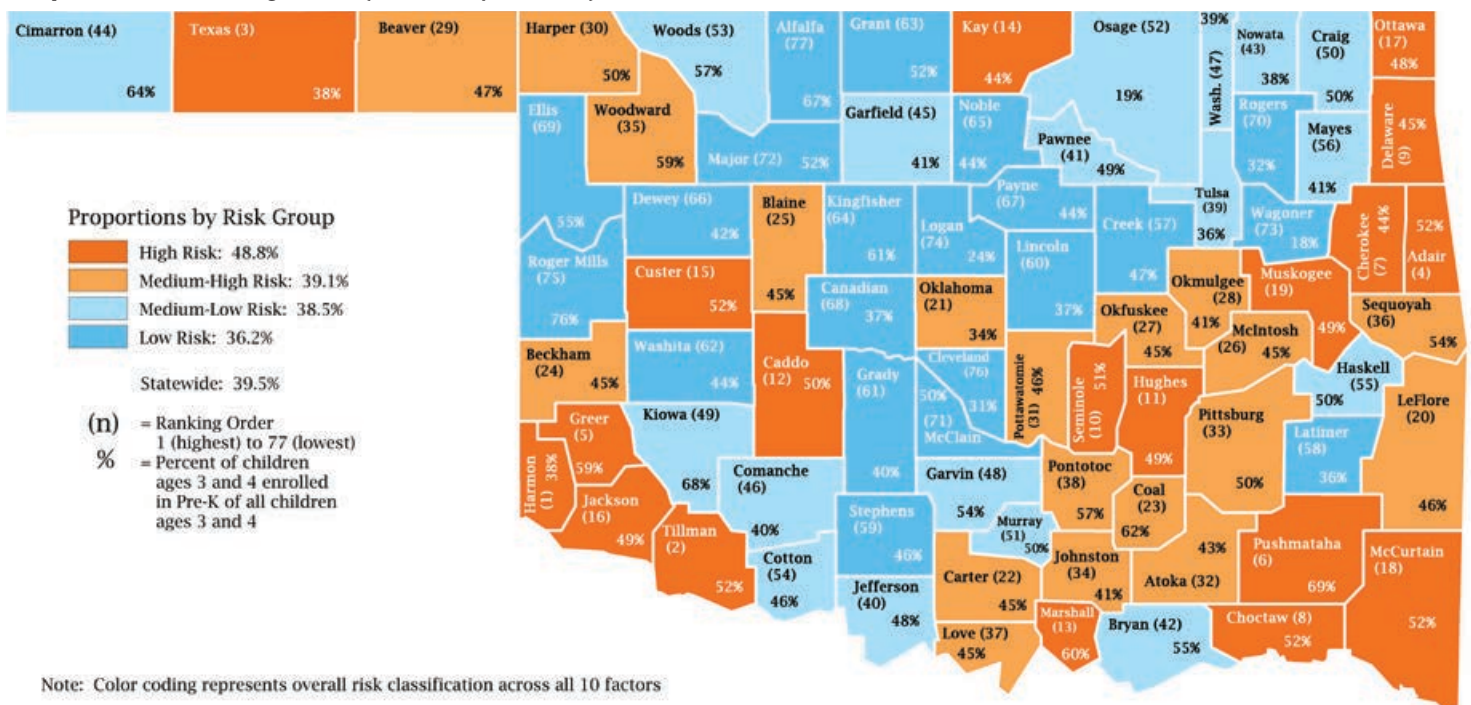
Since 2003, Oklahoma has been ranked first in the nation for availability and quality of public preschool.⁵⁶ In addition, although not state-funded, 281 school districts served 3 year olds either in stand-alone classrooms or in 4-year-old classrooms in 2012-2013.

As of October 2012, approximately 40,000 children age 4 and 1,900 children age 3 were enrolled in pre-K. Of these children, nearly 30,000 (71%) attended full-day and approximately 12,000 attended half-day programs. As Map 14 shows, High Risk counties served the greatest proportion of both age groups at nearly half of all 3 and 4 year olds in these counties, which had the highest rate of full-day attendance (90%). Low Risk Roger Mills County served the highest rate of children (76%), while Low Risk Wagoner County served the lowest (18%). Low Risk Creek County was at the median (47%) (Table 23).

Table 23. Rank and rate of children reached by pre-kindergarten (Higher scores = higher reach)

Reach Rank	County	Risk Group	Percent
1	Roger Mills	Low	75.9
2	Pushmataha	High	69.5
3	Kiowa	Med-Low	68.0
4	Alfalfa	Low	66.7
5	Cimarron	Med-Low	63.6
39	Creek	Low	47.0
73	Rogers	Low	31.9
74	Cleveland	Low	30.9
75	Logan	Low	24.1
76	Osage	Med-Low	18.6
77	Wagoner	Low	18.0

Map 14: Pre-kindergarten (3 and 4 year old) reach



The following two programs expand quality education for particular counties or municipalities. Due to the limited geographic scope of these programs, reach ratios were not calculated.

OKLAHOMA EARLY CHILDHOOD PROGRAM (OECP)

Launched in 2006 and administered by Community Action Project (CAP) of Tulsa County, OECP is a public/private partnership to improve the quality and expand the capacity of early education services for low-income children from birth to age 3. OECP-funded programs provide comprehensive, full-day, year-round services in a range of settings. Child and family eligibility is based on one of the following: family income at or below 185% of the federal poverty level, demonstrated income eligibility for DHS or tribal child care assistance, or in foster care.⁵⁷

OECP-funded providers must meet rigorous national standards based on selected EHS performance standards. OECP emphasizes recruitment and retention of highly trained teachers and staff. Each program must provide family support services via a degreed family support specialist. Curricula must align with Oklahoma’s Early Learning Guidelines for infants and toddlers. Providers must apply for OECP funding and offer services in at least one rural and one urban area and supplement state funds with private funds.

As of fall 2013, eight organizations, including the Cherokee Nation, provided OECP-funded services to 1,970 children in seven counties (Choctaw, Mayes, McCurtain, Oklahoma, Pushmataha, Tulsa and Washington). Of these children, 1,720 attended center-based and 250 attended home-based programs (Table 24). Three counties with OECP-funded programs are High Risk, one is High-Medium Risk and two are Medium-Low Risk.

Table 24. OECP enrollment, 2013–2014

	Center-based	Home-based
High	48	0
High-Medium	156	0
Medium-Low	1516	250
Low	0	0
State Total	1720	250

EDUCARE

A national research-based public-private partnership, Educare offers full-day, year-round education targeting low-income children from 6 weeks to 5 years old who are at-risk for being unprepared for school. To be eligible, a family must have an income at or below 100% of the federal poverty level. Services target social, emotional, and cognitive development; mental health; parental involvement; and nutrition, with meals prepared on site. The Educare curriculum draws from research on best practices in early learning, and teachers are degreed in early childhood education.⁵⁸

Oklahoma has four Educare programs, one stand-alone site in Oklahoma City that predominately serves children in HS and EHS and three centers located adjacent to or on the grounds of elementary schools in Tulsa. In 2012–2013, a total of 670 children were served by Educare in one High-Medium Risk county (Oklahoma) and one Medium-Low Risk county (Tulsa) who were not also served by HS/EHS (Table 25).

Table 25: Educare enrollment, 2013–2014

	Enrollment (non-HS/EHS)
High	0
High-Medium	16*
Medium-Low	654
Low	0
State Total	670

Note: Non-Head Start/Early Head Start enrollment

CHILD CARE REACH

Comparing the six child care indicators to the risk classifications shows no significant relationship with child care reach, with reach being relatively comparable across risk groups. For example, the High Risk and Medium-Low Risk groups have similar rates of counties in the two highest reach groups. Six capacity and enrollment indicators were included in the child care Reach Index calculation: licensed centers, licensed providers overall and quality capacity, DHS contractors and their capacity, and quality subsidized enrollment.

The highest overall reach is among Medium-Low Risk counties, with 33% in the High Reach group (Table 26). Table 27 lists the 20 counties with the highest and lowest scores on the child care Reach Index. The highest reach is in Medium-Low Risk Craig County, with the lowest in Low Risk Ellis County.

In 1998 Oklahoma became the first state in the nation to implement a child care Quality Rating and Improvement System (QRIS), "Reaching for the Stars." The program, administered by DHS Child Care Services (CCS), uses evidence-based quality criteria and a tiered subsidy reimbursement system tied to Stars ratings. The Stars program consists of four tiers (One Star, One-Plus Star, Two Star, and Three Star) that involve increasing requirements for higher ratings.

Subsidized child care benefits ensure high quality care for children while their parents or guardians are at work, in training, trying to find employment, or receiving an education. Subsidy benefits may also be provided as part of a protective service plan. The subsidy is paid directly to a licensed and contracted child care provider on behalf of the family, which may have a copayment. Benefits are available up to a child's 13th birthday, or 19th if the child has a disability.⁵⁹ Families may qualify if the gross household income ranges from \$2425/month or less with one child to \$3625/month with three or more children in care. Subsidy amounts increase with higher provider Stars ratings.⁶⁰

Child care quality capacity and subsidized enrollment rates are discussed on the following pages.

Table 26: Percent of counties by risk and child care reach

Child Care Reach-by-Risk					
	Reach	Low	Medium-Low	High-Medium	High
Risk	High	21%	32%	26%	21%
	High-Medium	5%	32%	37%	26%
	Medium-Low	33%	22%	11%	33%
	Low	43%	14%	24%	19%
	State Total	26%	25%	25%	25%

Table 27. Rank and score on the child care Reach Index (Higher scores = higher reach)

Reach Rank	County	Risk Group	Reach Score
1	Craig	Med-Low	0.938
2	Bryan	Med-Low	0.896
3	Washington	Med-Low	0.809
4	Pontotoc	High-Med	0.782
5	Kiowa	Med-Low	0.738
6	Hughes	High	0.732
7	Comanche	Med-Low	0.714
8	Pottawatomie	High-Med	0.710
9	Coal	High-Med	0.688
10	Oklahoma	High-Med	0.664
39	Sequoyah	High-Med	0.074
68	Texas	High	-0.719
69	Jefferson	Med-Low	-0.720
70	Grant	Low	-0.768
71	Murray	Med-Low	-0.873
72	Harmon	High	-0.976
73	Adair	High	-1.031
74	Cimarron	Med-Low	-1.106
75	Beaver	High-Med	-1.333
76	Dewey	Low	-1.339
77	Ellis	Low	-1.753

QUALITY AND CAPACITY FOR OVERALL ENROLLMENT

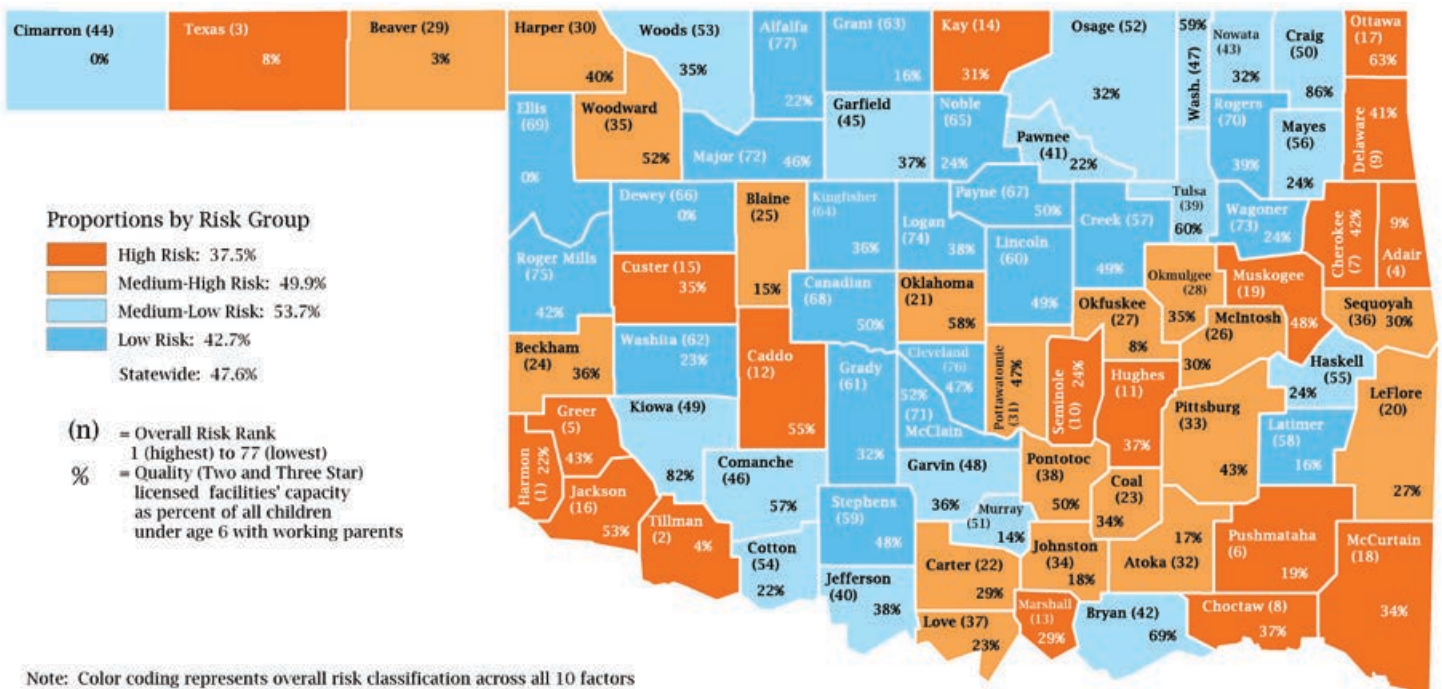
In state fiscal year 2013, 1,580 (40%) of 3,959 licensed facilities were Two Star and 261 (7%) were Three Star providers. Across the state, there are fewer center-based (42%) than home-based providers, with High Risk counties having the highest rate of licensed centers at 47%, which decreases with risk.

The capacity of child care providers to meet demand is another important consideration. Using the 183,461 Oklahoma children under age 6 with parents in the labor force as a proxy of demand, the overall licensed capacity is sufficient to serve approximately 73% of those children (Appendix 12). This leaves an estimated gap of 27%. The greatest gap (41%) is in High Risk counties, with the lowest (20%) in Medium-Low Risk counties. Map 15 shows quality child care capacity rates across the state. Two and Three Star providers have only enough capacity to reach an estimated 48% of young children with working parents, leaving a gap of 52%. Again, the highest gap (63%) is in High Risk counties, with the lowest (46%) in Medium-Low Risk counties. The highest rate of quality capacity is in Medium-Low Risk Craig County (86%), with the lowest in Medium-Low Risk Cimarron and Low Risk Dewey and Ellis counties (0%) (Table 28).

Table 28. Rank and rate of quality capacity to serve demand (Higher scores = higher reach)

Reach Rank	County	Risk Group	Percent
1	Craig	Med-Low	86.1
2	Kiowa	Med-Low	82.4
3	Bryan	Med-Low	69.5
4	Ottawa	High	62.7
5	Tulsa	Med-Low	59.8
39	Custer	High	35.2
70	Texas	High	8.1
71	Okfuskee	High-Med	8.1
72	Tillman	High	4.4
73	Beaver	High-Med	2.7
74 (tie)	Cimarron	Med-Low	0.0
74 (tie)	Dewey	Low	0.0
74 (tie)	Ellis	Low	0.0

Map 15: Quality licensed child care capacity



QUALITY AND CAPACITY FOR SUBSIDY ENROLLMENT

Child care subsidy is funded through the Child Care Development Fund, Temporary Assistance for Needy Families, state funds, and the Administration for Children and Families.

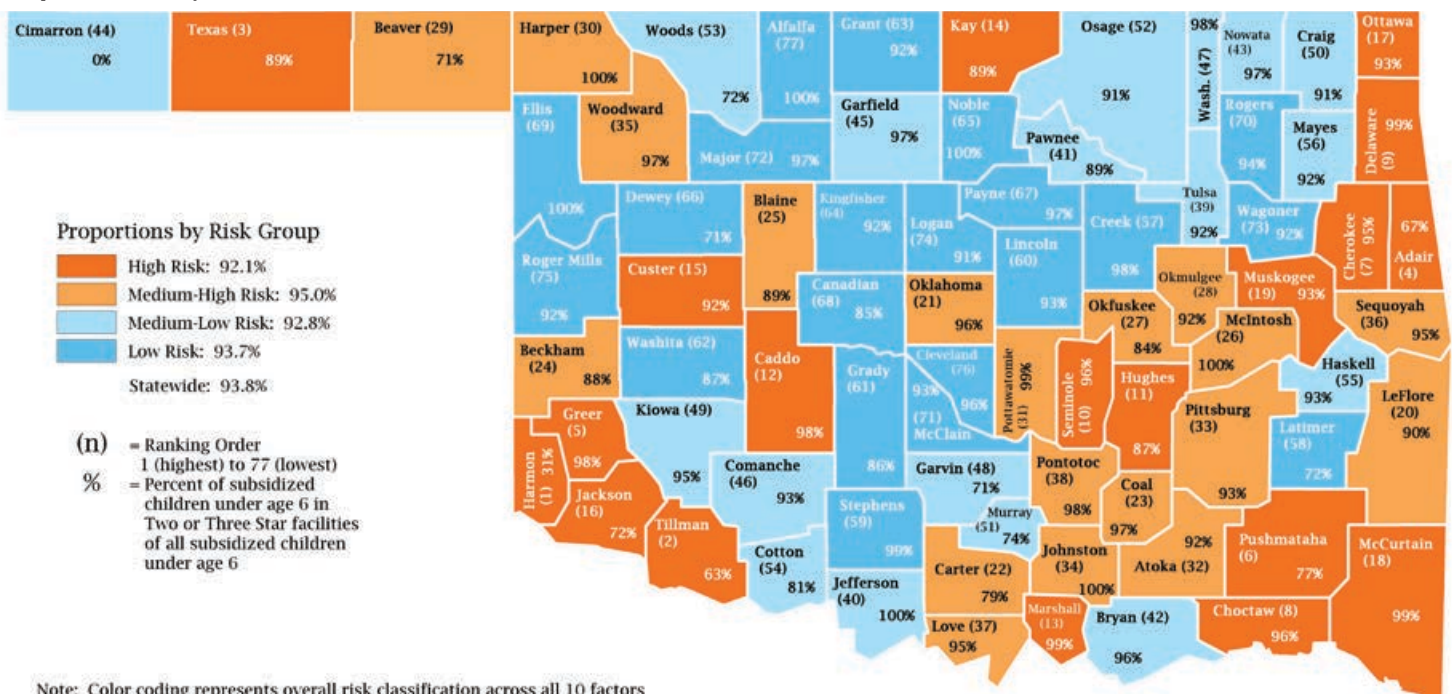
For state fiscal year 2013, nearly 60% of licensed providers contracted with DHS to offer subsidized child care to 46,018 Oklahoma children under age 6 (25% of all young children with working parents). The greatest rate of DHS contractors was in High-Medium Risk counties (64%). Statewide, children with subsidies represented 51% of total capacity of DHS contractors.¹ High-Medium risk counties had the highest rate (60%) of subsidized children to capacity, while High Risk counties had the lowest rate (49%) (Appendix 12). As Map 16 shows, 94% of children with child care subsidies were enrolled in attended Two or Three Star facilities. Across risk groups, High-Medium Risk counties had the highest quality enrollment rate (95%). Subsidized enrollment rates at Three Star providers increase as risk declines.

Although seven counties had 100% subsidized enrollment at Two and Three Star providers, four were Low or Medium-Low Risk counties and none were High Risk (Table 29). Medium-Low Risk Cimarron County had the lowest rate of quality subsidized enrollment (0%).

Table 29. Rank and rate of quality subsidized enrollment (Higher scores = higher reach)

Reach Rank	County	Risk Group	Percent
1 (tie)	Harper	High-Med	100.0
1 (tie)	McIntosh	High-Med	100.0
1 (tie)	Johnston	High-Med	100.0
1 (tie)	Jefferson	Med-Low	100.0
1 (tie)	Alfalfa, Ellis, Noble	Low	100.0
33	Atoka	High-Med	92.4
62	Garvin	Med-Low	70.9
63	Adair	High	66.7
64	Tillman	High	63.2
65	Harmon	High	30.8
66	Cimarron	Med-Low	0.0

Map 16: Quality enrollment of subsidized children



HOME VISITATION PROGRAMS

It was not possible to measure home visitation reach using multiple programs due to data restrictions that limited analysis at the county level. Reach ratios were calculated for the Oklahoma Parents as Teachers (OPAT) program, with data on children and families served by other home visitation programs discussed later in this section.

OKLAHOMA PARENTS AS TEACHERS

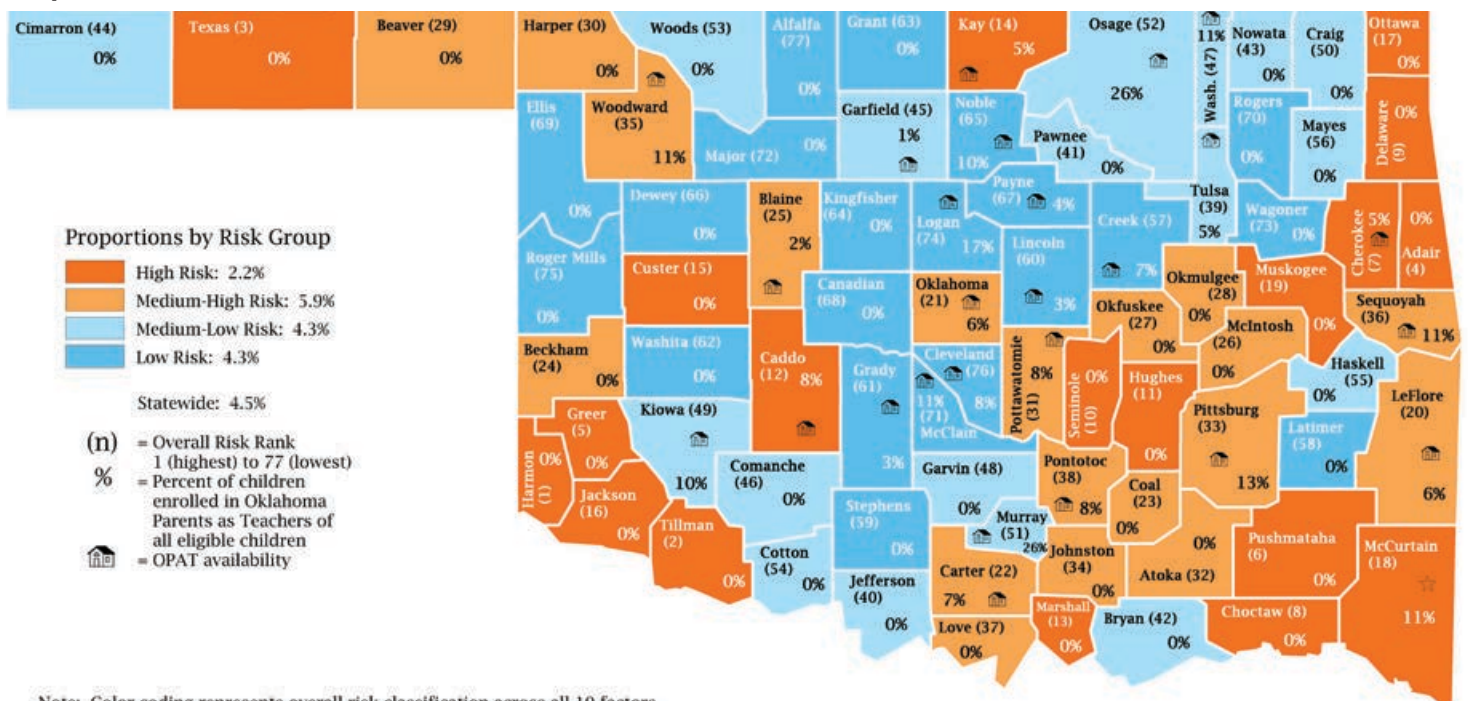
Administered by the Oklahoma State Department of Education and operated through local school districts, OPAT aims to engage parents in their child’s education from infancy through age 2.⁶¹ Parent educators and program coordinators must be certified and attend continued training. OPAT is voluntary and free to all expectant parents and parents with young children in school districts that receive OPAT grant funds.

During academic year 2012-2013, 3,646 children received OPAT services in 27 counties across the state. As Map 17 shows, the High Risk group had the fewest number of counties with OPAT and reached the lowest number and percent of children (2.2%). Medium-Low Risk Murray County served the highest rate of children in OPAT (26%), with Garfield County serving the lowest (0.9%). Low Risk Cleveland County was at the median (8%) (Table 30).

Table 30. Rank and rate of children reached by OPAT (counties without OPAT excluded)

Reach Rank	County	Risk Group	Percent
1	Murray	Med-Low	26.2
2	Osage	Med-Low	25.7
3	Logan	Low	17.2
4	Pittsburg	High-Med	12.8
5	Washington	Med-Low	11.3
14	Cleveland	Low	7.9
23	Payne	Low	3.8
24	Lincoln	Low	3.5
25	Grady	Low	2.6
26	Blaine	High-Med	2.1
27	Garfield	Med-Low	0.9

Map 17: Oklahoma Parents as Teachers reach



HOME VISITATION: OKLAHOMA STATE DEPARTMENT OF HEALTH PROGRAMS

The following programs provide home visitation services through the Oklahoma State Department of Health. All programs are supported by federal and state funds, with Children First and Start Right also supported by local funds. Table 31 lists number of families or children served for each program. All data are reported for calendar year 2012. Due to numerous counties with masked data, reach ratios could not be calculated for the programs.

CHILDREN FIRST (NURSE-FAMILY PARTNERSHIP)

Children First is Oklahoma’s Nurse-Family Partnership program that serves low-income women expecting their first child. Services begin prior to the 29th week of pregnancy and may continue until a child’s second birthday, and are available to families with household incomes no more than 185% of the federal poverty level.⁶² Services are delivered through county health departments by registered nurses who work with expectant mothers to reduce the risk of poor birth outcomes. Although Children First is available in all counties, some counties may not receive services due to lack of referrals, full caseloads, or vacant nurse positions. In 2012, Children First served 3,572 families in 67 counties. Low Risk counties served the greatest number of families, followed by High-Medium Risk counties.

START RIGHT

Using the Healthy Families America (HFA) home visitation model, trained staff work with families to adopt parenting approaches that stimulate child development.⁶³ There are no income eligibility requirements. First-time mothers beyond the 29th week of pregnancy, pregnant women expecting the birth of a subsequent child, and/or a legal guardian with a child less than 1 year old are eligible for services up to a child’s fifth birthday.⁶⁴ Start Right targets children who may be at-risk for abuse and neglect due to family environment. Research on HFA suggests the program reduces child maltreatment and family dependency on cash assistance programs.^{65,66} In 2012, Start Right served 1,048 families in 38 counties. The greatest number of families served resided in High-Medium Risk counties, although the most counties served were in the High Risk group.

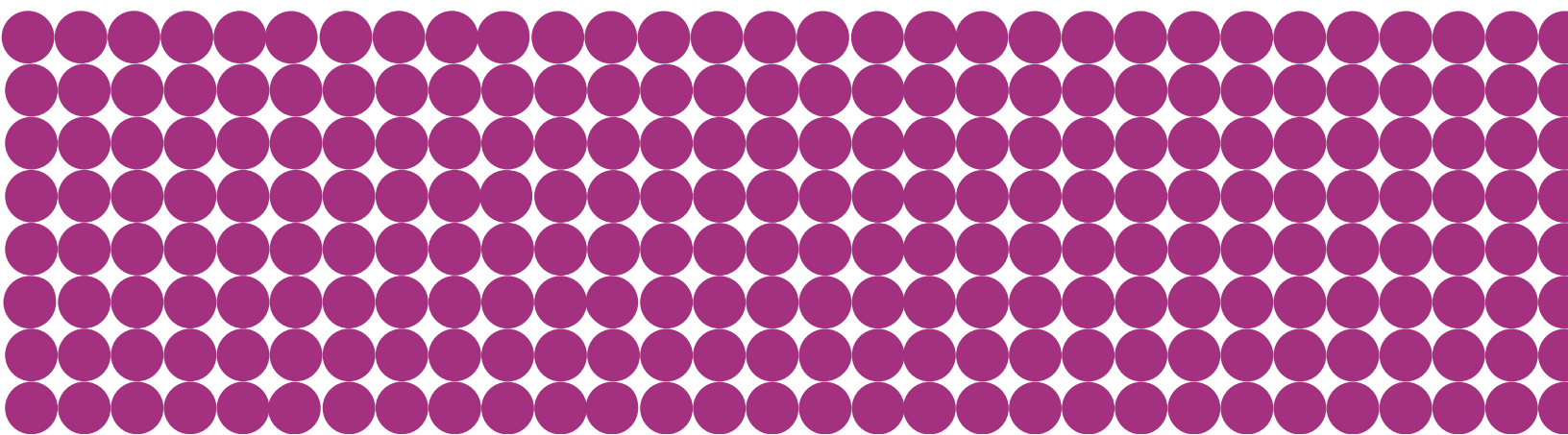
SOONERSTART/EARLY INTERVENTION (IDEA PART C)

SoonerStart/Early Intervention provides services for every county as required under the Individuals with Disabilities Education Act (IDEA) Part C for infants and toddlers through 36 months who have disabilities and/or developmental delays.⁶⁷ There are no income eligibility requirements. Services are provided in the home or child care setting and include diagnostics, case management, family training and home visits, physical and speech-language therapy, and health services. The Oklahoma State Department of Education contracts with the Department of Health to deliver services and ensure program compliance. In 2012, SoonerStart served 8,037 children in 50 counties. High-Medium Risk counties served the most children, followed by Low Risk counties.

Table 31: Children First, Start Right, and SoonerStart enrollment, 2012

	Children First		Start Right		SoonerStart	
	Families	Counties	Families	Counties	Children	Counties
High	626	18	262	12	1,180	13
High-Medium	995	17	370	6	2,675	13
Medium-Low	865	15	150	10	1,683	11
Low	1,086	17	266	10	2,499	13
State Total	3,572	67	1,048	38	8,037	50

LIMITATIONS AND CONCLUSIONS



Data presented in this document provide a baseline for continued monitoring of the state of school readiness in Oklahoma. In the future, more variables that explain school readiness will be included in the analysis as data become available at the county level.

LIMITATIONS

The research presented in this report is not without its limitations. The method for calculating an overall risk level as an average of the 10 individual indicators is limited by the assumption that each indicator carries the same weight, or degree of influence, on school readiness. It is likely that some indicators, such as poverty, are more strongly associated with poor school readiness than other indicators. However, considerable research suggests that it is the number of risk factors a child faces that increases the likelihood of being unprepared for school rather than individual factors alone. This reduces concerns about the contribution of individual indicators to school readiness and directs attention to the cumulative effect of multiple risks on poor school readiness.^{68,69} In addition, while factors other than those presented here may contribute to poor school readiness, this research is limited to data available at the county level.

Reach data are also limited only to statewide programs with data available by county. Moreover, as families move from one county to another over the course of a year, it is likely that some reach data include duplicated counts. For example, children in HS may participate in more than one HS program throughout a given year, and thus would appear in aggregated counts provided by at least two programs.

Data on home visitation programs are limited by confidentiality protections that mask data below a certain number. For example, the Oklahoma State Department of Health does not report numbers of children served by county if the total is less than 50. For counties where it is reported that no children were served by a home visitation program, it cannot be determined whether there were no referrals for services or whether children were not served due to full caseloads or staffing shortages. Finally, it is important to remember that this report represents a cross-sectional analysis, or snapshot of a single year, and data related to both risk and reach could increase or decrease in any given year.

CONCLUSIONS

RISK

An estimated 316,500 children age 5 and younger reside in Oklahoma (see Appendix 1 for population by county). Of Oklahoma's 77 counties, 19 are classified as High Risk, with an additional 19 grouped as High-Medium Risk, 18 as Medium-Low Risk, and 21 as Low Risk. Nearly 145,000 children, or 46% of all children from infancy to age 5, reside in High or High-Medium Risk counties.

REACH

Reach data were collected from several major early childhood education programs and from DHS Child Care Services. To the extent possible, data from these programs were used to calculate reach-to-risk ratios that provide an estimate of the percent of eligible children served by each program. These percentages were mapped to risk classifications to provide a snapshot of the relationship between reach and risk. Reach-to-risk ratios are estimates and are subject to limitations described earlier, such as potentially duplicated numbers of children served and eligibility counts based on extrapolated numbers rather than absolute numbers. Despite these limitations, the information presented here is still useful to early childhood stakeholder and policy makers in understanding where the reach of services may not match the need in a particular county based on risk level.

REACH-BY-RISK

Significant, positive correlations were found between risk groups and reach for overall and education reach; however, there is no significant relationship between risk and reach for the child care indicators. About half of High Risk counties have among the highest rates of reach; another fourth have overall low reach; and the remaining fourth have medium reach rates. (See Appendix 9 for a listing of counties by risk and reach groupings combined for each of the Reach Indexes.)

Table 32 shows Oklahoma children in lower reach counties by risk group. Of 38 High and High-Medium Risk counties, 13 (34%) are classified as Low to Medium-Low Reach compared to 41% of Medium-Low and Low Risk counties. Nearly 85,000 children, or 27% of all children from infancy to age 5, reside in High or High-Medium Risk counties with low rates of reach. A handful of counties at greatest risk are in the lowest reach group.

The four counties ranked as the highest risk for poor school readiness – Harmon, Tillman, Texas and Adair – have the lowest reach of all High Risk counties. For the High-Medium Risk group, two counties – Beaver and Harper – have the lowest reach. Significant, positive correlations were found between risk groups and reach for overall and education reach; however, there is no significant relationship between risk and reach for the child care indicators.

NEXT STEPS

The Oklahoma School Readiness Reach-by-Risk Report is intended to be used as a tool for decision making related to policy and distribution of limited resources. It is the aim of DHS to produce annual updates to the report in order to monitor county levels of risk for poor school readiness and the extent to which children at greatest risk have access to quality early child care and education programs. Next steps specific to data collection include efforts to understand capacity restrictions of programs offered statewide but which may not serve children or families in each county. This will provide insight into the extent to which un-served counties stems from lack of need or from limited capacity due to staffing shortages, such as full caseloads or unfilled staff positions.

Table 32. Summary findings: Oklahoma children in lower reach counties by risk group

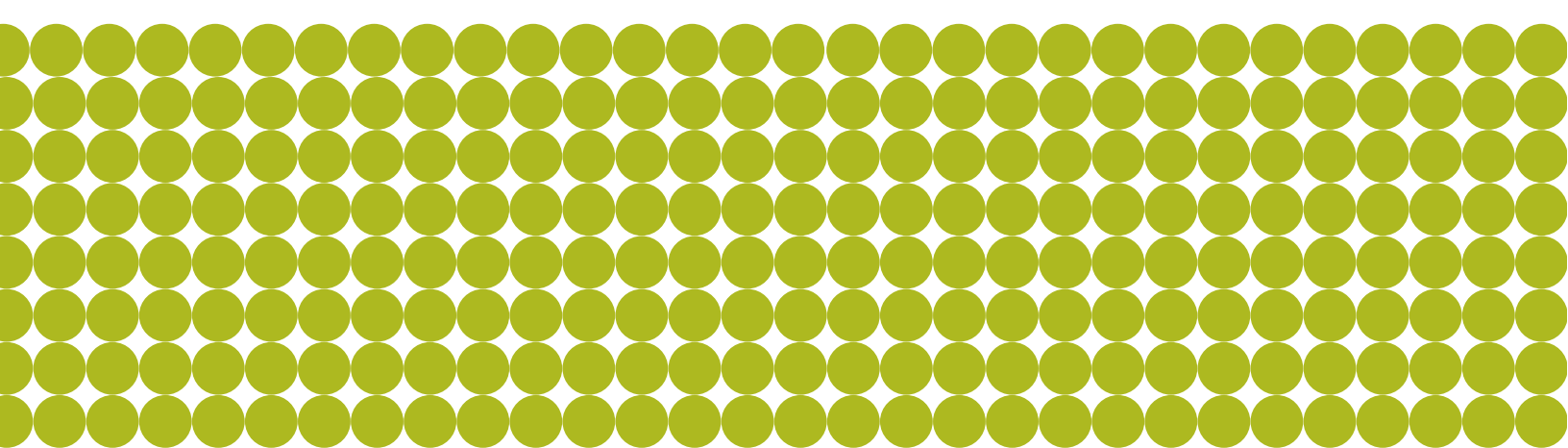
Risk level	Number of counties	Number of Low to Medium-Low Reach counties	Number of children (0-5) in lower reach counties ¹	Percent of all children 0-5 in Oklahoma
High Risk	19	7	14,214	4.5%
High-Medium Risk	19	6	70,369	22.2%
Medium-Low Risk	18	11	27,345	8.6%
Low Risk	21	15	58,250	18.4%
	77	39	170,178	53.8%

¹Source: US Census 2010



APPENDICES:

Risk and Reach Data



APPENDIX 1:	POPULATION UNDER AGE 6 BY COUNTY
APPENDIX 2:	RISK INDICATORS, DATA SOURCES AND DESCRIPTIONS
APPENDIX 3:	SRRI OVERALL SCORE, RANK, AND QUARTILE BY COUNTY
APPENDIX 4:	SRRI OVERALL AND COMPONENT SCORE BY RISK GROUP
APPENDIX 5:	RISK INDICATORS BY COUNTY AND INDICATOR RANK
APPENDIX 6:	NUMBER OF INDICATORS BY RISK LEVEL
APPENDIX 7:	CORRELATIONS AMONG RISK INDICATORS
APPENDIX 8:	REACH INDICATORS, DATA SOURCES AND DESCRIPTIONS
APPENDIX 9:	COUNTIES BY REACH AND RISK GROUPINGS
APPENDIX 10:	REACH INDEX SCORE AND QUARTILE BY RISK GROUP
APPENDIX 11:	PROGRAM REACH: EARLY CHILDHOOD EDUCATION
APPENDIX 12:	PROGRAM REACH: CHILD CARE
APPENDIX 13:	PROGRAM REACH: HOME VISITATION
APPENDIX 14:	NOTES
APPENDIX 15:	REFERENCES

Appendix 1. Population under age 6 by county

POPULATION UNDER AGE 6			
Nation	24,258,220		
Oklahoma	316,500	Latimer	796
Adair	2,006	Le Flore	4,133
Alfalfa	325	Lincoln	2,699
Atoka	1,097	Logan	3,398
Beaver	480	Love	751
Beckham	2,003	Major	584
Blaine	934	Marshall	1,260
Bryan	3,368	Mayes	3,423
Caddo	2,448	McClain	2,964
Canadian	10,325	McCurtain	2,795
Carter	4,025	McIntosh	1,282
Cherokee	3,722	Murray	1,094
Choctaw	1,274	Muskogee	5,886
Cimarron	221	Noble	940
Cleveland	20,296	Nowata	749
Coal	455	Okfuskee	918
Comanche	11,272	Oklahoma	65,696
Cotton	484	Okmulgee	3,187
Craig	1,040	Osage	3,535
Creek	5,327	Ottawa	2,631
Custer	2,270	Pawnee	1,274
Delaware	2,896	Payne	5,339
Dewey	368	Pittsburg	3,462
Ellis	343	Pontotoc	3,072
Garfield	5,458	Pottawatomie	5,730
Garvin	2,207	Pushmataha	839
Grady	4,283	Roger Mills	317
Grant	310	Rogers	6,610
Greer	379	Seminole	2,054
Harmon	287	Sequoyah	3,426
Harper	342	Stephens	3,592
Haskell	1,078	Texas	2,143
Hughes	985	Tillman	625
Jackson	2,409	Tulsa	53,584
Jefferson	532	Wagoner	6,283
Johnston	944	Washington	3,925
Kay	3,987	Washita	957
Kingfisher	1,324	Woods	631
Kiowa	680	Woodward	1,732

Source: US Census 2010

Appendix 2. Risk indicators, data sources and descriptions

RISK INDICATOR	DATA SOURCE	DESCRIPTION
Hispanic background		
1. Hispanic ethnicity	U.S. Census, American Community Survey, Sex by age, Hispanic or Latino, 2007-2011 five-year estimates.	Children under 5 years of age of Hispanic or Latino ethnicity.
2. English-language learners	Mulligan, G. M., Hastedt, S., & McCarroll, J. C. (2012). First-time kindergartners in 2010-2011: First findings from the kindergarten rounds of the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K: 2011) (NCES 2012-049). U.S. Department of Education. Washington, DC: NCES. Academic year (AY) 2010-2011. Oklahoma State Department of Education (OSDE), academic year (AY) 2011-2012.	Children in kindergarten who were English-language learners. Children in Oklahoma public school pre-kindergarten and kindergarten who were English-language learners.
3. Percent of births to mothers with less than high school diploma	U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2007-2011, on CDC WONDER Online Database, November 2013. Low maternal education, average for 2008 and 2009. Accessed at http://wonder.cdc.gov/natality-current.html Oklahoma State Department of Health (OSDH). Center for Health Statistics, Health Care Information, Vital Statistics, average for 2008 and 2009. Accessed at Oklahoma Statistics on Health Available for Everyone (OK2SHARE), http://www.health.ok.gov/ok2share	Number of live births to mothers who had not completed high school of all reported maternal educational levels. National data for states that used 2003 revised birth certificate. Number of live births to mothers with less than 12 years of education, by county of residence.
4. Migratory children	U.S. Department of Education, EDFacts / Consolidated States Performance Report, 2010-2011. Oklahoma State Department of Education (OSDE), academic year (AY) 2009-2010.	Children 3 to 5 years of age who meet the statutory definition of a migratory child found in Migrant Education Programs (MEP) under Title I, Part C of the No Child Left Behind Act of 2001. Children 3 to 5 years of age served by OSDE in the Migrant Education Program.
Family structure and economic distress		
5. Children in poverty	U.S. Census, American Community Survey, Age by ratio of income to poverty level in past 12 months, 2007-2011 five-year estimates.	Children under 6 years of age living under 100% of the federal poverty level.

Appendix 2. Risk indicators, data sources and descriptions (cont.)

RISK INDICATOR	DATA SOURCE	DESCRIPTION
6. Single-parent families	U.S. Census, American Community Survey, Own children under 18 years by family type and age, 2007-2011 five-year estimates.	Children under 6 years of age living in households headed by single parents.
7. Young maternal age	<p>U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2007-2011, on CDC WONDER Online Database, November 2013. Young maternal age, average for 2010 and 2011. Accessed at http://wonder.cdc.gov/natality-current.html</p> <p>Oklahoma State Department of Health. Center for Health Statistics, Health Care Information, Vital Statistics, average for 2011 and 2012. Accessed at Oklahoma Statistics on Health Available for Everyone (OK2SHARE), http://www.health.ok.gov/ok2share</p>	<p>Number of live births to mothers less than 20 years of age of all reported maternal ages.</p> <p>Number of live births to mothers between the ages of 10 and 19 of all reported ages, by county of residence.</p>
8. American Indian / Alaska Native Race	U.S. Census, American Community Survey, Sex by age, American Indian or Alaska Native, 2007-2011 five-year estimates.	Children under 5 years of age of American Indian or Alaska Native race.
Children in child welfare custody		
9. Abuse and neglect	<p>U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2012). Child Maltreatment 2011. Federal fiscal year 2011.</p> <p>Oklahoma Department of Human Services (DHS), state fiscal year 2012.</p>	<p>Substantiated cases of abuse and neglect among children under 6 years of age.</p> <p>Cases of abuse and neglect among children under 6 years of age confirmed by DHS.</p>
10. Foster care	<p>U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2012). The AFCARS Report: Preliminary FY 2012 Estimates as of July 2013, No. 20. Adoption and Foster Care Analysis and Reporting System (AFCARS), federal fiscal year 2012.</p> <p>Oklahoma Department of Human Services (DHS), state fiscal year 2012.</p> <p>(Note: National and state percents calculated using American Community Survey (ACS) 2007-2011 five-year estimates, Age by ratio of income to poverty level in the past 12 months, total under 6 years.)</p>	<p>Children under 6 years of age who are in foster care as of September 30, 2012.</p> <p>Children under 6 years of age who are in DHS protective custody.</p>

Appendix 3. SRR I overall score, rank, and quartile by county

	SRR I Score	Rank	Quartile ¹		SRR I Score	Rank	Quartile ¹
Adair	0.797	4	4	Latimer	-0.292	58	1
Alfalfa	-1.090	77	1	Le Flore	0.325	20	3
Atoka	0.119	32	3	Lincoln	-0.365	60	1
Beaver	0.173	29	3	Logan	-0.746	74	1
Beckham	0.281	24	3	Love	0.045	37	3
Blaine	0.199	25	3	Major	-0.715	72	1
Bryan	-0.007	42	2	Marshall	0.359	13	4
Caddo	0.396	12	4	Mayes	-0.283	56	2
Canadian	-0.651	68	1	McClain	-0.659	71	1
Carter	0.288	22	3	McCurtain	0.331	18	4
Cherokee	0.685	7	4	McIntosh	0.192	26	3
Choctaw	0.593	8	4	Murray	-0.228	51	2
Cimarron	-0.025	44	2	Muskogee	0.326	19	4
Cleveland	-0.873	76	1	Noble	-0.579	65	1
Coal	0.286	23	3	Nowata	-0.023	43	2
Comanche	-0.075	46	2	Okfuskee	0.183	27	3
Cotton	-0.275	54	2	Oklahoma	0.302	21	3
Craig	-0.189	50	2	Okmulgee	0.176	28	3
Creek	-0.292	57	1	Osage	-0.237	52	2
Custer	0.348	15	4	Ottawa	0.334	17	4
Delaware	0.580	9	4	Pawnee	-0.006	41	2
Dewey	-0.609	66	1	Payne	-0.616	67	1
Ellis	-0.652	69	1	Pittsburg	0.108	33	3
Garfield	-0.074	45	2	Pontotoc	0.005	38	3
Garvin	-0.157	48	2	Pottawatomie	0.154	31	3
Grady	-0.504	61	1	Pushmataha	0.709	6	4
Grant	-0.521	63	1	Roger Mills	-0.792	75	1
Greer	0.765	5	4	Rogers	-0.659	70	1
Harmon	1.494	1	4	Seminole	0.576	10	4
Harper	0.161	30	3	Sequoyah	0.055	36	3
Haskell	-0.278	55	2	Stephens	-0.360	59	1
Hughes	0.548	11	4	Texas	1.138	3	4
Jackson	0.342	16	4	Tillman	1.229	2	4
Jefferson	-0.005	40	2	Tulsa	0.004	39	2
Johnston	0.090	34	3	Wagoner	-0.718	73	1
Kay	0.356	14	4	Washington	-0.100	47	2
Kingfisher	-0.546	64	1	Washita	-0.517	62	1
Kiowa	-0.167	49	2	Woods	-0.246	53	2
				Woodward	0.078	35	3

¹Quartile rank: 4 = high risk, 3 = high-medium risk, 2=medium-low risk, 1 = low risk

Appendix 4. SRRl overall and component score by risk group

Color coding: Dark orange = High Risk; light orange = High-Medium Risk; light blue = Medium-Low Risk; and dark blue = Low Risk

Rank	County	SRRl score	Hispanic background	Family structure and economic distress	Children in Child Welfare	Migrant
1	Harmon	1.494	2.468	1.110	1.657	-0.222
2	Tillman	1.229	1.717	0.864	-1.525	6.739
3	Texas	1.138	4.720	-0.464	-0.913	0.897
4	Adair	0.797	1.358	1.291	-0.522	-0.222
5	Greer	0.765	0.185	-0.368	4.396	-0.222
6	Pushmataha	0.709	-0.360	1.463	1.270	-0.222
7	Cherokee	0.685	0.581	1.297	-0.410	0.734
8	Choctaw	0.593	-0.267	1.293	0.893	-0.222
9	Delaware	0.580	0.102	1.638	-0.416	-0.222
10	Seminole	0.576	-0.348	0.992	1.527	-0.222
11	Hughes	0.548	-0.500	1.383	0.834	-0.222
12	Caddo	0.396	0.141	0.738	0.167	0.256
13	Marshall	0.359	1.412	0.037	-0.288	-0.222
14	Kay	0.356	0.179	1.082	-0.542	-0.222
15	Custer	0.348	0.502	0.275	0.550	-0.222
16	Jackson	0.342	0.806	-0.385	-0.109	2.757
17	Ottawa	0.334	0.149	1.091	-0.626	-0.222
18	McCurtain	0.331	-0.115	1.068	-0.195	-0.222
19	Muskogee	0.326	-0.029	0.623	0.538	-0.222
20	Le Flore	0.325	0.571	0.511	-0.141	-0.222
21	Oklahoma	0.302	1.219	-0.226	0.243	-0.222
22	Carter	0.288	0.085	0.438	0.550	-0.222
23	Coal	0.286	-0.414	0.302	1.559	-0.222
24	Beckham	0.281	0.096	-0.080	1.531	-0.222
25	Blaine	0.199	-0.174	-0.227	1.823	-0.222
26	McIntosh	0.192	-0.400	0.415	0.841	-0.222
27	Okfuskee	0.183	-0.342	0.213	1.113	-0.222
28	Okmulgee	0.176	-0.607	0.707	0.489	-0.222
29	Beaver	0.173	0.862	-0.734	-1.145	4.368
30	Harper	0.161	2.126	-0.458	-1.360	-0.222
31	Pottawatomie	0.154	-0.340	0.288	0.813	-0.222
32	Atoka	0.119	-0.512	0.669	0.133	-0.222
33	Pittsburg	0.108	-0.338	0.113	0.930	-0.222
34	Johnston	0.090	-0.348	0.525	0.033	-0.222
35	Woodward	0.078	0.451	-0.366	0.558	-0.222
36	Sequoyah	0.055	-0.041	0.241	-0.035	-0.222
37	Love	0.045	0.308	0.290	-0.707	-0.222
38	Pontotoc	0.005	-0.225	-0.108	0.689	-0.222

Appendix 4. SRRl overall and component score by risk group (cont.)

Rank	County	SRRl score	Hispanic background	Family structure and economic distress	Children in Child Welfare	Migrant
39	Tulsa	0.004	0.768	-0.326	-0.366	-0.222
40	Jefferson	-0.005	-0.084	0.244	-0.278	-0.222
41	Pawnee	-0.006	-0.443	0.526	-0.306	-0.222
42	Bryan	-0.007	-0.162	-0.059	0.434	-0.222
43	Nowata	-0.023	-0.603	0.523	-0.146	-0.222
44	Cimarron	-0.025	0.601	-0.027	-0.861	-0.222
45	Garfield	-0.074	0.456	-0.040	-0.860	-0.222
46	Comanche	-0.075	-0.194	0.054	-0.081	-0.222
47	Washington	-0.100	-0.361	0.022	0.110	-0.222
48	Garvin	-0.157	0.038	-0.247	-0.239	-0.222
49	Kiowa	-0.167	-0.313	-0.212	0.167	-0.222
50	Craig	-0.189	-0.258	-0.267	0.090	-0.222
51	Murray	-0.228	0.116	-0.371	-0.462	-0.222
52	Osage	-0.237	-0.673	0.056	-0.174	-0.222
53	Woods	-0.246	-1.049	-0.756	1.965	-0.222
54	Cotton	-0.275	-0.799	-0.206	0.347	-0.222
55	Haskell	-0.278	-0.462	-0.186	-0.212	-0.222
56	Mayes	-0.283	-0.354	-0.134	-0.507	-0.222
57	Creek	-0.292	-0.525	-0.338	0.116	-0.222
58	Latimer	-0.292	-0.482	-0.013	-0.600	-0.222
59	Stephens	-0.360	-0.196	-0.620	-0.155	-0.222
60	Lincoln	-0.365	-0.726	-0.614	0.603	-0.222
61	Grady	-0.504	-0.549	-0.486	-0.614	-0.222
62	Washita	-0.517	-0.212	-0.584	-0.986	-0.222
63	Grant	-0.521	-0.921	-0.220	-0.674	-0.222
64	Kingfisher	-0.546	0.701	-1.287	-1.097	-0.222
65	Noble	-0.579	-0.799	-0.665	-0.255	-0.222
66	Dewey	-0.609	-0.300	-0.519	-1.445	-0.222
67	Payne	-0.616	-0.640	-0.833	-0.341	-0.222
68	Canadian	-0.651	-0.553	-1.139	-0.034	-0.222
69	Ellis	-0.652	-0.729	-0.477	-1.103	-0.222
70	Rogers	-0.659	-0.632	-0.718	-0.800	-0.222
71	McClain	-0.659	-0.279	-0.983	-0.801	-0.222
72	Major	-0.715	-0.181	-1.480	-0.234	-0.222
73	Wagoner	-0.718	-0.729	-0.726	-0.935	-0.222
74	Logan	-0.746	-0.678	-1.193	-0.213	-0.222
75	Roger Mills	-0.792	-0.765	-0.673	-1.356	-0.222
76	Cleveland	-0.873	-0.562	-1.226	-0.957	-0.222
77	Alfalfa	-1.090	-1.143	-1.342	-0.941	-0.222

Appendix 5. Risk indicators by county and indicator rank (denoted by R)

Color coding: Dark orange = High Risk; light orange = High-Medium Risk; light blue = Medium-Low Risk; and dark blue = Low Risk. Some counties may have different rankings but the same percent due to rounding.

	Hispanic		English-language learners		Low maternal education		Migrant		Poverty		Single parent		Young maternal age		American Indian / Alaska Native		Abuse and neglect		Foster care	
	%	R	%	R	%	R	%	R	%	R	%	R	%	R	%	R	%	R	%	R
Nation	28.6		16.0		21.7		0.40		22.9		28.6		8.9		1.0		1.3		0.6	
Oklahoma	16.5		10.6		21.5		0.01		26.9		30.9		11.4		8.6		1.7		2.4	
Adair	13.7	21	24.6	4	34.8	3	0.00		38.7	13	30.3	35	15.3	26	41.5	1	1.4	46	1.5	57
Alfalfa	4.5	71	0.0		8.8	77	0.00		17.3	67	17.7	70	6.8	77	1.1	69	1.4	50	0.3	73
Atoka	5.1	70	0.0		20.6	41	0.00		32.8	18	38.5	11	16.2	20	14.0	25	3.0	13	1.6	56
Beaver	31.4	4	20.1	7	16.2	59	0.79	2	19.9	63	20.8	62	13.4	38	0.0		1.0	64	0.2	76
Beckham	10.0	37	5.5	24	25.4	14	0.00		25.7	44	27.1	42	16.9	12	2.9	62	3.4	8	5.3	5
Blaine	11.9	27	4.2	33	19.7	46	0.00		22.3	55	24.4	49	13.4	37	12.4	28	3.4	7	6.1	3
Bryan	10.4	36	1.6	51	22.7	32	0.00		28.9	32	32.5	31	13.0	43	5.9	49	2.6	17	3.0	23
Caddo	17.3	17	3.8	36	22.4	33	0.08	6	30.2	27	24.0	50	18.8	5	26.1	8	1.4	49	3.7	17
Canadian	11.8	29	7.4	19	10.4	76	0.00		11.1	76	23.1	51	7.8	73	5.7	51	1.9	35	2.4	34
Carter	11.2	32	5.2	28	24.6	17	0.00		23.3	53	36.5	15	16.4	18	15.5	22	2.4	22	3.5	18
Cherokee	15.2	20	14.0	11	25.8	13	0.16	5	46.1	6	39.6	8	13.8	33	30.0	3	1.2	57	2.1	41
Choctaw	5.2	68	0.0		25.2	15	0.00		40.9	12	50.0	2	19.5	4	9.3	37	2.5	19	4.5	7
Cimarron	27.8	7	7.1	20	22.0	35	0.00		51.4	3	29.7	37	9.2	69	0.0		0.5	72	1.6	55
Cleveland	11.5	31	5.3	26	11.9	73	0.00		14.8	70	21.1	60	6.9	75	3.8	59	0.7	71	1.1	66
Coal	4.2	73	0.0		23.1	27	0.00		45.5	8	36.1	16	11.1	60	5.7	50	4.8	2	3.7	16
Comanche	18.3	16	4.8	30	14.6	65	0.00		29.5	30	44.9	4	9.9	67	5.3	53	1.4	52	2.9	24
Cotton	8.4	45	0.0		12.8	70	0.00		20.5	62	25.6	47	15.6	24	7.7	43	2.5	20	2.9	26
Craig	7.9	49	0.5	60	23.2	26	0.00		11.8	75	18.0	68	15.2	27	21.8	9	1.7	42	3.1	22
Creek	5.8	64	1.5	53	18.8	52	0.00		21.6	58	24.9	48	13.0	42	9.6	34	2.2	29	2.6	32
Custer	25.8	9	5.1	29	22.8	30	0.00		32.4	21	38.4	12	12.3	50	10.8	30	2.5	18	3.4	20
Delaware	7.4	57	1.9	49	29.6	5	0.00		46.1	7	38.9	9	17.4	8	33.5	2	1.3	55	2.0	47
Dewey	7.1	60	5.6	23	19.7	47	0.00		13.7	73	19.7	65	15.1	28	9.5	35	0.0		0.5	70
Ellis	7.6	54	3.7	38	12.2	71	0.00		27.3	37	22.9	52	12.3	47	3.4	61	1.3	56	0.0	77
Garfield	16.7	18	11.9	12	23.6	21	0.00		34.8	16	32.7	28	12.5	45	2.6	64	0.8	69	1.3	64
Garvin	11.9	28	3.8	37	24.1	19	0.00		21.9	56	25.8	46	12.4	46	13.2	27	1.5	45	2.4	35
Grady	7.8	50	2.0	47	16.7	58	0.00		21.6	59	22.5	55	12.2	51	8.8	39	1.1	61	1.7	50
Grant	7.4	56	0.0		11.1	75	0.00		23.7	52	33.3	24	13.5	36	2.6	63	1.1	60	1.5	60
Greer	25.7	10	1.4	54	19.1	50	0.00		17.8	65	10.3	75	22.0	1	2.5	65	8.2	1	7.9	1
Harmon	37.4	2	29.0	3	37.3	2	0.00		54.9	1	34.3	21	21.1	2	1.8	68	3.5	5	5.5	4
Harper	24.0	11	47.6	2	27.8	9	0.00		28.4	33	32.0	32	10.2	65	0.0		0.4	74	0.4	72
Haskell	9.3	39	1.8	50	17.6	54	0.00		13.8	72	22.2	57	16.0	21	16.7	18	2.2	26	1.5	61
Hughes	4.3	72	0.0		21.3	38	0.00		49.6	4	35.8	17	16.5	16	26.7	4	3.2	11	3.5	19
Jackson	31.1	5	8.5	16	22.8	29	0.51	3	28.2	36	26.1	45	13.0	41	1.1	70	2.0	34	2.1	43
Jefferson	11.7	30	2.3	46	22.9	28	0.00		26.1	43	38.3	13	15.7	23	6.2	47	1.7	40	1.9	48
Johnston	6.6	61	0.7	58	22.3	34	0.00		29.0	31	35.7	18	20.0	3	5.0	55	1.7	39	2.9	27
Kay	12.4	25	3.0	42	27.0	11	0.00		41.6	11	42.2	5	17.0	11	15.3	23	1.3	54	1.6	54
Kingfisher	22.7	12	19.6	8	19.3	48	0.00		11.0	77	7.6	77	12.2	52	4.1	58	1.0	62	0.3	74
Kiowa	8.8	43	2.9	43	20.0	44	0.00		29.5	28	26.5	44	11.7	56	9.0	38	2.2	28	2.7	29

Appendix 5. Risk indicators by county and indicator rank (cont.)

	Hispanic		English-language learners		Low maternal education		Migrant		Poverty		Single parent		Young maternal age		American Indian / Alaska Native		Abuse and neglect		Foster care	
	%	R	%	R	%	R	%	R	%	R	%	R	%	R	%	R	%	R	%	R
Latimer	10.7	34	0.0		17.3	55	0.00		18.3	64	31.3	33	11.7	57	21.3	12	1.4	51	1.4	63
Le Flore	16.1	19	8.3	17	28.6	7	0.00		31.2	22	32.7	29	18.0	7	10.8	31	1.8	37	2.2	39
Lincoln	4.1	74	0.0		17.1	56	0.00		23.0	54	18.6	67	11.8	55	8.0	42	2.4	23	3.7	14
Logan	7.2	59	4.4	32	13.1	68	0.00		16.2	69	16.6	73	7.7	74	6.0	48	1.6	43	2.3	38
Love	19.7	14	9.7	14	20.1	43	0.00		26.7	40	33.3	25	17.1	10	8.6	40	0.9	66	1.7	52
Major	12.2	26	9.8	13	15.8	60	0.00		13.7	74	8.7	76	9.9	68	0.0		2.0	32	1.7	51
Marshall	29.1	6	17.2	10	30.2	4	0.00		25.1	47	28.5	40	16.9	13	6.2	46	2.2	27	1.3	65
Mayes	5.2	69	0.5	59	23.2	25	0.00		25.3	46	20.7	63	14.6	30	13.4	26	1.0	63	2.1	42
McClain	13.1	22	7.1	21	15.1	63	0.00		20.9	61	19.4	66	8.4	71	4.9	56	1.2	59	1.0	67
McCurtain	9.2	40	1.9	48	24.2	18	0.00		43.8	9	34.0	22	17.4	9	19.9	13	2.3	25	1.4	62
McIntosh	3.3	77	0.0		23.9	20	0.00		32.5	20	21.6	58	14.4	31	26.6	5	2.8	15	3.9	10
Murray	8.0	48	4.0	34	28.1	8	0.00		23.8	51	22.6	54	12.3	49	10.6	32	0.9	67	2.4	33
Muskogee	10.8	33	3.9	35	23.5	22	0.00		31.0	23	37.7	14	13.7	34	21.4	11	3.1	12	2.6	31
Noble	5.5	67	1.3	55	13.9	66	0.00		24.1	50	22.4	56	9.1	70	8.5	41	2.0	33	1.6	53
Nowata	6.5	62	0.0		17.8	53	0.00		30.8	25	41.0	6	12.8	44	17.3	16	1.7	41	2.3	36
Okfuskee	7.8	51	0.9	57	21.4	37	0.00		32.7	19	21.0	61	12.0	54	26.1	7	3.5	4	3.9	12
Oklahoma	26.6	8	22.0	6	25.0	16	0.00		29.5	29	35.1	20	10.4	63	3.5	60	2.1	31	3.1	21
Okmulgee	7.3	58	0.4	61	16.9	57	0.00		33.9	17	35.5	19	16.5	15	16.6	19	2.1	30	3.8	13
Osage	5.7	65	2.5	45	15.4	61	0.00		26.4	41	28.6	39	11.6	58	19.6	14	1.8	38	2.1	40
Ottawa	9.6	38	6.3	22	26.1	12	0.00		34.9	14	38.8	10	16.5	17	26.3	6	0.8	70	2.1	44
Pawnee	8.1	46	0.0		19.8	45	0.00		42.2	10	33.2	26	12.3	48	16.2	21	1.3	53	2.3	37
Payne	7.7	53	5.5	25	12.8	69	0.00		26.4	42	26.9	43	6.8	76	2.2	67	1.5	44	2.0	45
Pittsburg	8.1	47	1.3	56	21.1	40	0.00		25.4	45	27.7	41	14.2	32	16.4	20	3.2	10	3.7	15
Pontotoc	8.9	42	3.7	39	21.2	39	0.00		31.0	24	31.0	34	10.5	62	10.5	33	2.3	24	4.1	9
Pottawatomie	8.7	44	1.6	52	20.4	42	0.00		27.1	38	33.3	23	13.3	39	18.1	15	2.6	16	4.1	8
Pushmataha	6.2	63	0.0		22.7	31	0.00		54.1	2	49.1	3	18.6	6	7.1	44	3.4	9	4.5	6
Roger Mills	5.7	66	0.0		15.3	62	0.00		24.9	48	17.6	72	12.1	53	4.4	57	0.4	73	0.4	71
Rogers	7.4	55	4.5	31	13.8	67	0.00		14.1	71	17.8	69	10.3	64	16.7	17	0.8	68	1.5	59
Seminole	7.8	52	0.0		21.9	36	0.00		34.8	15	39.6	7	16.6	14	21.8	10	4.5	3	3.9	11
Sequoyah	3.8	75	5.2	27	27.1	10	0.00		28.2	35	32.5	30	15.9	22	9.4	36	2.4	21	1.8	49
Stephens	12.5	24	3.7	40	19.2	49	0.00		17.6	66	20.6	64	13.7	35	5.4	52	1.4	48	2.7	30
Texas	58.6	1	57.0	1	48.2	1	0.19	4	21.7	57	29.5	38	13.1	40	0.4	72	1.2	58	0.7	69
Tillman	33.5	3	24.0	5	28.7	6	1.19	1	46.4	5	50.9	1	14.9	29	0.5	71	0.0		0.3	75
Tulsa	20.5	13	17.5	9	23.4	23	0.00		27.0	39	33.1	27	10.1	66	5.2	54	1.4	47	2.0	46
Wagoner	8.9	41	2.9	44	12.0	72	0.00		21.0	60	22.8	53	7.9	72	11.9	29	1.0	65	0.9	68
Washington	10.7	35	7.5	18	14.8	64	0.00		30.2	26	30.0	36	11.1	59	14.9	24	1.9	36	2.8	28
Washita	12.8	23	3.1	41	19.1	51	0.00		24.9	49	21.6	59	11.0	61	6.7	45	0.3	75	1.5	58
Woods	3.4	76	0.0		11.3	74	0.00		16.9	68	17.6	71	15.3	25	0.0		3.5	6	6.5	2
Woodward	19.4	15	9.5	15	23.3	24	0.00		28.3	34	16.2	74	16.4	19	2.4	66	3.0	14	2.9	25

Appendix 6. Number of indicators by risk level

		High risk	High-medium risk	Medium-low risk	Low risk
HIGH RISK	Mean	4.74	1.89	1.53	1.84
	Harmon	7	1	0	2
	Tillman	6	1	0	3
	Texas	4	1	2	3
	Adair	4	3	2	1
	Greer	4	0	2	4
	Pushmataha	5	1	1	3
	Cherokee	6	2	2	0
	Choctaw	6	1	0	3
	Delaware	5	0	4	1
	Seminole	6	1	1	2
	Hughes	6	1	0	3
	Caddo	5	3	2	0
	Marshall	4	1	3	2
	Kay	4	2	3	1
	Custer	3	5	1	1
	Jackson	3	3	3	1
	Ottawa	5	2	1	2
	McCurtain	4	2	1	2
	Muskogee	3	6	0	1
HIGH-MEDIUM RISK	Mean	3.05	2.63	1.74	2.58
	Le Flore	4	4	1	1
	Oklahoma	3	4	0	3
	Carter	4	4	1	1
	Coal	4	1	1	4
	Beckham	4	2	2	2
	Blaine	2	4	3	1
	McIntosh	3	3	0	4
	Okfuskee	4	1	3	2
	Okmulgee	5	1	1	3
	Beaver	3	1	0	6
	Harper	3	2	0	5
	Pottawatomie	3	2	4	1
	Atoka	3	2	2	3
	Pittsburg	2	2	5	1
	Johnston	2	3	2	3
	Woodward	4	3	0	3
	Sequoyah	1	6	1	2
	Love	3	1	4	2
	Pontotoc	1	4	3	2

Appendix 6. Number of indicators by risk level (cont.)

		High risk	High-medium risk	Medium-low risk	Low risk
MEDIUM-LOW RISK	Mean	1.22	2.94	2.83	3.00
	Tulsa	2	2	4	2
	Jefferson	1	3	5	1
	Pawnee	1	3	4	2
	Bryan	1	5	3	1
	Nowata	2	2	3	3
	Cimarron	2	3	1	4
	Garfield	3	2	1	4
	Comanche	2	3	2	3
	Washington	1	6	0	3
	Garvin	1	4	4	1
	Kiowa	0	4	5	1
	Craig	1	3	2	4
	Murray	1	3	4	2
	Osage	1	1	4	4
	Woods	2	1	0	7
	Cotton	0	3	3	4
	Haskell	1	2	4	3
Mayes	0	3	2	5	
LOW RISK	Mean	0.33	1.52	2.76	5.38
	Creek	0	3	4	3
	Latimer	1	2	3	4
	Stephens	0	3	4	3
	Lincoln	1	1	4	4
	Grady	0	0	6	4
	Washita	0	1	4	5
	Grant	0	2	2	6
	Kingfisher	2	0	2	6
	Noble	0	1	5	4
	Dewey	0	3	1	6
	Payne	0	1	5	4
	Canadian	1	3	2	4
	Ellis	0	2	4	4
	Rogers	1	1	1	7
	McClain	0	2	1	7
	Major	1	2	1	6
	Wagoner	0	1	3	6
	Logan	0	2	2	6
	Roger Mills	0	0	3	7
Cleveland	0	2	0	8	
Alfalfa	0	0	1	9	

Appendix 7. Correlations among risk indicators

	Hispanic	English-language learners	Low maternal education	Migrant	Poverty	Single parent	Young maternal age	American Indian/Alaska Native	Abuse and neglect	Foster care
Hispanic	1.00									
English-language learners	0.81	1.00								
Low maternal education	0.55	0.60	1.00							
Migrant	0.46	0.33	0.15	1.00						
Poverty	0.09	0.06	0.47	0.13	1.00					
Single parent	0.06	0.05	0.39	0.17	0.72	1.00				
Young maternal age	0.08	-0.05	0.49	0.04	0.37	0.33	1.00			
American Indian/Alaska Native	-0.36	-0.25	0.20	-0.20	0.28	0.22	0.25	1.00		
Abuse and neglect	0.08	-0.25	0.05	-0.21	0.13	-0.01	0.41	0.06	1.00	
Foster care	-0.13	-0.29	0.07	-0.24	0.17	0.07	0.43	0.10	0.80	1.00

Appendix 8. Reach indicators, data sources and descriptions

REACH INDICATOR	DATA SOURCE	DESCRIPTION
Education		
Head Start	<p>Oklahoma Head Start programs, 2012-2013.</p> <p>Eligible population source: U.S. Census 2010, Sex by age, ages 3 to 4 – total population; U.S. Census, American Community Survey, Age by ratio of income to poverty level in past 12 months, 2007-2011 five-year estimates.</p> <p>(Note: Eligible population for Head Start and Early Head Start determined by multiplying population data from 2010 Census by estimated rate of children under age 6 at less than 100% of federal poverty level.)</p>	Percent of 3 and 4 year olds served in Head Start.
Early Head Start	<p>Oklahoma Early Head Start programs, 2012-2013.</p> <p>Eligible population source: U.S. Census 2010, Sex by age, ages infant to 2 years – total population.</p> <p>(See above note regarding calculation of eligible population.)</p>	Percent of infants to 2 year olds served in Early Head Start.
OK Pre-K (4-year-old)	<p>Oklahoma State Department of Education, fall enrollment, October 2012.</p> <p>Eligible population source: U.S. Census 2010, Sex by age, age 4 – total population.</p>	Percent of 4 year olds served in OK universal pre-kindergarten.
OK Pre-K (3-year-old)	<p>Oklahoma State Department of Education, fall enrollment, October 2012.</p> <p>Eligible population source: U.S. Census 2010, Sex by age, age 3 – total population.</p>	<p>Percent of 3 year olds served in a dedicated classroom or in a 4-year-old pre-kindergarten classroom.</p> <p>(Note: Of 281 districts serving 3 year olds, 179 reported serving 5 or fewer students.)</p>
OK Early Childhood Program (OECF)	Community Action Project (CAP) Tulsa, 2013-2014.	Number of children from infancy to age 3 served by OECF programs.
Educare	Oklahoma Educare programs, 2012-2013	Number of children from infancy to age 5 served by Educare programs.
Child Care		
Licensed centers	Oklahoma Child Care Services, SFY 2013.	Percent of all licensed child care providers that are centers.

Appendix 8. Reach indicators, data sources and descriptions (cont.)

REACH INDICATOR	DATA SOURCE	DESCRIPTION
Overall capacity	Oklahoma Child Care Services, SFY 2013. Eligible population source: U.S. Census, American Community Survey, Children under age 6 with working parents, 2007-2011.	Capacity of all licensed providers as percent of children under age 6 with working parents.
Quality capacity	Oklahoma Child Care Services, SFY 2013. Eligible population source: U.S. Census, American Community Survey, Children under age 6 with working parents, 2007-2011.	Capacity of Two and Three Star providers as percent of children under age 6 with working parents.
OKDHS contractors	Oklahoma Child Care Services, SFY 2013.	Percent of all licensed child care providers that contract with OKDHS.
Subsidy to capacity	Oklahoma Child Care Services, SFY 2013. (Note: Percents greater than 100% due data collection method. Enrollment is by county of residence; capacity is by county of provider.)	Children with subsidy benefits as percent of DHS contractor capacity.
Quality subsidized enrollment	Oklahoma Child Care Services, SFY 2013.	Percent of children with child care subsidy benefits enrolled at Two and Three Star providers.
Home Visitation		
Oklahoma Parents as Teachers (OPAT)	Oklahoma State Department of Education, 2012-2013. Eligible population source: U.S. Census 2010, Sex by age, ages infant to 2 years – total population; U.S. Census, American Community Survey, Age by ratio of income to poverty level in past 12 months, 2007-2011 five-year estimates. (Note: Eligible population for OPAT determined by multiplying population data from 2010 Census by estimated rate of children under age 6 at less than 185% of federal poverty level.)	Percent of children from infancy to age 2 served by OPAT.
Children First	Oklahoma State Department of Health, calendar year 2012. (Note: For Children First, Start Right and SoonerStart/Early Intervention, children aged just above the cutoff may be served as they age out of the program.)	Number of children from infancy to age 1 served by Children First.
Start Right	Oklahoma State Department of Health, calendar year 2012.	Number of children from infancy to age 4 served by Start Right.
SoonerStart/Early Intervention	Oklahoma State Department of Health, calendar year 2012.	Number of children from infancy to age 2 served by SoonerStart/Early Intervention.

Appendix 9. Counties by reach and risk

Counties are ordered by risk rank from highest to lowest for each reach group

Counties by Overall Reach and Risk				
	Low Reach	Medium-Low Reach	High-Medium Reach	High Reach
High Risk	Harmon	Delaware	Marshall	Greer
	Tillman	Kay	Jackson	Pushmataha
	Texas	Custer	Ottawa	Cherokee
	Adair			Choctaw
				Seminole
				Hughes
				Caddo
				McCurtain
High-Medium Risk				Muskogee
	Beaver	Oklahoma	LeFlore	Coal
	Harper	Beckham	Carter	Pottawatomie
		Atoka	Blaine	Pittsburg
		Love	McIntosh	Sequoyah
			Okfuskee	Pontotoc
			Okmulgee	
			Johnston	
Medium-Low Risk			Woodward	
	Jefferson	Pawnee	Tulsa	Bryan
	Garfield	Nowata	Washington	Kiowa
	Woods	Cimarron	Osage	Craig
	Cotton	Comanche		Haskell
		Garvin		
		Murray		
Low Risk		Mayes		
	Latimer	Lincoln	Stephens	Creek
	Washita	Grady	Kingfisher	
	Grant	Noble	Payne	
	Dewey	Logan	McClain	
	Canadian	Roger Mills	Major	
	Ellis			
	Rogers			
	Wagoner			
	Cleveland			
Alfalfa				

Appendix 9. Counties by reach and risk (cont.)

Counties are ordered by risk rank from highest to lowest for each reach group

Counties by Education Reach and Risk				
	Low Reach	Medium-Low Reach	High-Medium Reach	High Reach
High Risk	Texas	Hughes	Harmon	Tillman
	Delaware	Custer	Cherokee	Adair
	Kay	Ottawa	McCurtain	Greer
				Pushmataha
				Choctaw
				Seminole
				Caddo
				Marshall
				Jackson
				Muskogee
High-Medium Risk	Oklahoma	McIntosh	Le Flore	Coal
	Beckham	Okfuskee	Carter	Blaine
	Beaver	Okmulgee	Atoka	Sequoyah
	Harper	Pottawatomie	Pittsburg	
			Johnston	
			Woodward	
			Love	
			Pontotoc	
Medium-Low Risk	Tulsa	Jefferson	Pawnee	Bryan
	Garfield	Nowata	Garvin	Cimarron
	Comanche	Craig	Murray	Kiowa
	Washington	Osage	Mayes	Haskell
	Woods	Cotton		
Low Risk	Lincoln	Stephens	Latimer	Creek
	Washita	Grady	Payne	
	Dewey	Grant	Ellis	
	Canadian	Noble	Major	
	Rogers	McClain		
	Wagoner	Roger Mills		
	Logan	Alfalfa		
	Cleveland			

Appendix 9. Counties by reach and risk (cont.)

Counties are ordered by risk rank from highest to lowest for each reach group

Counties by Child Care Reach and Risk				
	Low Reach	Medium-Low Reach	High-Medium Reach	High Reach
High Risk	Harmon	Pushmataha	Greer	Choctaw
	Tillman	Seminole	Cherokee	Hughes
	Texas	Marshall	Delaware	Caddo
	Adair	Kay	McCurtain	Ottawa
		Custer	Muskogee	
		Jackson		
High-Medium Risk	Beaver	Carter	Le Flore	Oklahoma
		Blaine	Beckham	Coal
		Harper	McIntosh	Okmulgee
		Atoka	Okfuskee	Pottawatomie
		Sequoyah	Pittsburg	Pontotoc
		Love	Johnston	
			Woodward	
Medium-Low Risk	Jefferson	Pawnee	Garfield	Tulsa
	Cimarron	Nowata	Haskell	Bryan
	Garvin	Osage		Comanche
	Murray	Mayes		Washington
	Woods			Kiowa
	Cotton			Craig
Low Risk	Latimer	Grady	Lincoln	Creek
	Washita	Kingfisher	Payne	Stephens
	Grant	Canadian	Rogers	Major
	Noble		McClain	Cleveland
	Dewey		Logan	
	Ellis			
	Wagoner			
	Roger Mills			
	Alfalfa			

Appendix 9. Counties by reach and risk (cont.)

Counties are ordered by risk rank from highest to lowest for each reach group. Only counties served by OPAT programs are listed.

Counties by OPAT Reach and Risk				
	Low Reach	Medium-Low Reach	High-Medium Reach	High Reach
High Risk	Kay	Cherokee	Caddo	
			McCurtain	
High-Medium Risk	Blaine	Le Flore	Pontotoc	Pittsburg
		Oklahoma		Woodward
		Carter		Sequoyah
		Pottawatomie		
Medium-Low Risk	Garfield	Tulsa	Kiowa	Washington
				Murray
				Osage
Low Risk	Lincoln	Creek	Noble	Logan
	Grady		McClain	
	Payne		Cleveland	

Appendix 10. Reach index score and quartile by risk group (OPAT scores are found in Appendix 13)

Color coding for data tables in Appendices 10 through 13

Reach: Dark orange = Low Reach; light orange = Medium-Low Reach; light blue = High-Medium Reach; and dark blue = High Reach

Risk (left foremost column): Dark orange = High Risk; light orange = High-Medium Risk; light blue = Medium-Low Risk; and dark blue = Low Risk

		Reach score: Overall	Reach score: Education	Reach score: Child care	Reach score: OPAT
HIGH RISK	Harmon	-0.466	0.167	-0.976	-0.566
	Tillman	-0.203	0.388	-0.634	-0.566
	Texas	-0.885	-1.148	-0.719	-0.566
	Adair	-0.300	0.631	-1.031	-0.566
	Greer	0.625	1.212	0.334	-0.566
	Pushmataha	0.409	1.047	0.039	-0.566
	Cherokee	0.301	0.343	0.262	0.322
	Choctaw	0.625	0.908	0.588	-0.566
	Delaware	0.034	-0.244	0.367	-0.566
	Seminole	0.335	0.953	-0.029	-0.566
	Hughes	0.331	0.029	0.732	-0.566
	Caddo	0.687	0.696	0.649	0.871
	Marshall	0.109	0.400	-0.021	-0.566
	Kay	-0.189	-0.345	-0.135	0.263
	Custer	-0.192	-0.132	-0.179	-0.566
	Jackson	0.165	0.492	0.014	-0.566
	Ottawa	0.212	-0.068	0.574	-0.566
McCurtain	0.356	0.164	0.346	1.372	
Muskogee	0.352	0.603	0.296	-0.566	
HIGH-MEDIUM RISK	Le Flore	0.201	0.146	0.183	0.582
	Oklahoma	-0.041	-0.995	0.664	0.502
	Carter	0.179	0.204	0.072	0.689
	Coal	0.653	0.855	0.688	-0.566
	Beckham	-0.195	-0.537	0.152	-0.566
	Blaine	0.059	0.352	-0.145	-0.179
	McIntosh	0.079	-0.090	0.327	-0.566
	Okfuskee	0.098	0.024	0.271	-0.566
	Okmulgee	0.184	-0.093	0.540	-0.566
	Beaver	-0.871	-0.378	-1.333	-0.566
	Harper	-0.471	-0.831	-0.156	-0.566
	Pottawatomie	0.444	0.057	0.710	0.785
	Atoka	-0.083	0.205	-0.242	-0.566
	Pittsburg	0.417	0.168	0.404	1.742
	Johnston	0.216	0.206	0.353	-0.566
	Woodward	0.300	0.097	0.288	1.386
	Sequoyah	0.397	0.578	0.074	1.429
Love	0.023	0.269	-0.084	-0.566	
Pontotoc	0.537	0.168	0.782	0.913	

Appendix 10. Reach index score and quartile by risk group (cont.)

		Reach score: Overall	Reach score: Education	Reach score: Child care	Reach score: OPAT
MEDIUM-LOW RISK	Tulsa	0.051	-0.559	0.521	0.280
	Jefferson	-0.400	0.017	-0.720	-0.566
	Pawnee	-0.016	0.313	-0.199	-0.566
	Bryan	0.578	0.426	0.896	-0.566
	Nowata	-0.190	-0.200	-0.120	-0.566
	Cimarron	-0.174	1.023	-1.106	-0.566
	Garfield	-0.244	-0.649	0.119	-0.398
	Comanche	0.011	-0.718	0.714	-0.566
	Washington	0.275	-0.605	0.809	1.471
	Garvin	-0.120	0.299	-0.395	-0.566
	Kiowa	0.657	0.431	0.738	1.298
	Craig	0.343	-0.188	0.938	-0.566
	Murray	-0.001	0.215	-0.873	4.145
	Osage	0.172	-0.146	-0.209	4.054
	Woods	-0.464	-0.410	-0.492	-0.566
	Cotton	-0.310	-0.044	-0.489	-0.566
	Haskell	0.321	0.553	0.276	-0.566
	Mayes	-0.073	0.131	-0.161	-0.566
LOW RISK	Creek	0.487	0.481	0.448	0.754
	Latimer	-0.334	0.066	-0.629	-0.566
	Stephens	0.245	-0.070	0.643	-0.566
	Lincoln	-0.155	-0.481	0.082	0.061
	Grady	-0.148	-0.130	-0.172	-0.093
	Washita	-0.511	-0.284	-0.691	-0.566
	Grant	-0.524	-0.224	-0.768	-0.566
	Kingfisher	0.039	0.476	-0.224	-0.566
	Noble	-0.143	-0.081	-0.415	1.184
	Dewey	-1.146	-1.030	-1.339	-0.566
	Payne	0.153	0.110	0.195	0.113
	Canadian	-0.423	-0.808	-0.078	-0.566
	Ellis	-0.861	0.151	-1.753	-0.566
	Rogers	-0.268	-0.766	0.196	-0.566
	McClain	0.180	-0.201	0.299	1.370
	Major	0.213	0.100	0.438	-0.566
	Wagoner	-0.813	-1.469	-0.308	-0.566
	Logan	-0.052	-0.872	0.203	2.519
	Roger Mills	-0.150	0.065	-0.259	-0.566
	Cleveland	-0.327	-1.459	0.419	0.850
Alfalfa	-0.311	0.031	-0.553	-0.566	

Appendix 11. Program reach: Early childhood education (R denotes rank)

See color coding in Appendix 10. Some counties may have different rankings but the same percent due to rounding.

		Head Start (HS)		Early Head Start (EHS)		HS/EHS Combined		Pre-K: 3-year-old		Pre-K: 4-year-old		Pre-K: 3 & 4 Combined		Pre-K: Full day	
		%	R	%	R	%	R	%	R	%	R	%	R	%	R
	Oklahoma	57.1		6.1		28.3		3.6		75.8		39.5		70.9	
HIGH RISK	Group	70.1		10.2		37.3		6.5		91.6		48.8		90.1	
	Harmon	47.6	36	22.2	6	34.4	40	3.1	42	84.0	34	38.3	65	95.5	19
	Tillman	100.0	1	--	42	70.6	6	17.8	8	84.6	32	51.7	22	83.0	29
	Texas	44.8	38	--	42	17.5	67	3.2	41	71.5	52	38.0	67	20.4	56
	Adair	97.4	3	4.3	36	43.4	25	15.2	9	91.9	19	52.2	18	100.0	1
	Greer	100.0	1	41.2	1	100.0	1	1.5	63	100.0	1	58.6	9	98.5	11
	Pushmataha	73.1	16	10.4	21	36.1	37	27.4	2	100.0	1	69.5	2	100.0	1
	Cherokee	85.0	7	14.0	15	42.1	27	2.1	58	89.1	25	44.0	52	100.0	1
	Choctaw	100.0	1	11.2	19	59.3	11	23.0	4	82.8	37	52.1	20	100.0	1
	Delaware	40.1	45	5.5	32	19.9	65	3.2	40	83.6	35	45.0	48	99.8	2
	Seminole	100.0	1	23.0	4	58.5	12	10.7	15	92.0	18	50.8	24	99.7	3
	Hughes	71.5	17	--	42	31.1	48	12.1	13	81.2	42	48.8	35	91.7	24
	Caddo	100.0	1	21.8	7	79.0	2	2.4	49	97.4	7	50.5	25	91.4	25
	Marshall	100.0	1	--	42	53.6	17	14.8	10	100.0	1	59.9	8	69.0	36
	Kay	32.3	46	5.7	30	16.2	70	3.3	38	87.2	29	43.8	53	87.4	27
	Custer	61.8	24	5.5	33	27.3	54	3.8	33	100	1	52.2	19	62.7	39
	Jackson	75.2	14	17.5	12	39.8	29	3.9	32	95.6	10	49.5	32	100.0	1
	Ottawa	65.1	21	--	42	25.5	57	1.6	62	94.7	12	48.0	36	100.0	1
	McCurtain	57.3	32	2.0	40	24.8	60	7.9	19	99.3	2	52.5	17	100.0	1
Muskogee	78.3	12	22.6	5	45.3	24	4.5	28	96.8	8	48.9	34	91.9	22	
HIGH-MEDIUM RISK	Group	56.9		2.1		25.9		3.8		74.7		39.1		67.0	
	Le Flore	100.0	1	--	42	56.8	15	3.1	43	88.5	26	45.9	41	98.6	10
	Oklahoma	41.5	40	0.8	41	16.8	68	2.3	53	67.0	55	34.0	72	50.9	51
	Carter	100.0	1	--	42	49.4	21	6.9	22	84.4	33	44.8	50	99.5	4
	Coal	100.0	1	--	42	64.7	9	21.9	5	100.0	1	62.2	6	100.0	1
	Beckham	67.4	20	5.8	29	31.1	49	1.4	65	94.2	13	45.5	44	25.1	55
	Blaine	100.0	1	23.4	3	72.1	5	4.9	26	89.3	23	45.2	46	49.6	52
	McIntosh	64.8	22	--	42	27.0	56	8.1	17	79.8	45	45.4	45	100.0	1
	Okfuskee	100.0	1	--	42	58.4	13	1.4	64	82.8	38	44.9	49	99.3	6
	Okmulgee	63.3	23	9.6	22	32.0	44	2.4	50	77.0	47	40.9	60	98.7	9
	Beaver	61.3	29	--	42	24.9	59	2.4	51	98.6	3	47.5	38	56.0	45
	Harper	21.6	51	--	42	9.5	75	0.0	74	94.2	14	50.0	28	53.8	48
	Pottawatomie	80.7	10	17.6	11	42.5	26	4.0	30	86.6	30	45.7	42	56.3	44
	Atoka	70.0	18	--	42	29.9	51	26.0	3	61.3	57	43.0	56	100.0	1
	Pittsburg	100.0	1	--	42	51.6	19	5.2	25	89.7	22	49.7	31	91.9	23
	Johnston	100.0	1	--	42	51.1	20	8.0	18	81.9	40	40.6	61	100.0	1
	Woodward	40.6	44	9.2	24	21.7	64	5.2	24	100.0	1	58.6	10	95.6	18
	Sequoyah	96.6	4	--	42	39.7	30	18.8	7	88.2	27	54.0	15	100.0	1
	Love	100.0	1	--	42	46.2	23	3.4	36	95.8	9	45.1	47	100.0	1
Pontotoc	81.1	9	--	42	32.1	43	3.6	34	100	1	57.1	11	97.9	12	

Appendix 11. Program reach: Early childhood education (cont.)

		Head Start (HS)		Early Head Start (EHS)		HS/EHS Combined		Pre-K: 3-year-olds		Pre-K: 4-year-olds		Pre-K: 3 & 4 Combined		Pre-K: Full day	
		%	R	%	R	%	R	%	R	%	R	%	R	%	R
MEDIUM-LOW RISK	Group	49.8		7.3		25.7		2.7		74.9		38.5		78.5	
	Tulsa	46.1	37	8.3	26	23.4	62	2.1	57	69.7	54	35.7	71	75.0	33
	Jefferson	100.0	1	--	42	66.1	7	11.1	14	79.6	46	47.7	37	69.6	35
	Pawnee	60.9	28	18.4	10	35.5	38	3.0	44	91.0	20	49.3	33	100.0	1
	Bryan	100.0	1	--	42	41.3	28	6.9	21	100.0	1	55.2	14	100.0	1
	Nowata	40.5	43	12.0	17	24.4	61	3.5	35	76.7	48	38.2	66	97.1	13
	Cimarron	100.0	1	--	42	36.5	36	33.3	1	93.9	16	63.6	5	90.5	26
	Garfield	24.9	49	--	42	10.1	74	2.8	45	81.6	41	41.1	59	84.7	28
	Comanche	41.1	42	5.6	31	19.1	66	1.3	68	81.2	43	39.9	62	51.2	50
	Washington	22.4	50	3.0	38	10.9	73	2.5	48	74.7	50	38.6	64	96.7	15
	Garvin	85.8	6	4.9	34	37.2	34	2.7	46	100.0	1	53.9	16	98.7	8
	Kiowa	100.0	1	--	42	77.5	3	8.1	17	100.0	1	68.0	3	96.4	17
	Craig	41.5	41	--	42	16.7	69	2.3	54	97.7	6	50.3	27	100.0	1
	Murray	100.0	1	--	42	58.2	14	0.5	72	97.9	4	49.7	30	100.0	1
	Osage	100.0	1	20.9	8	62.5	10	1.3	69	37.3	61	18.6	76	96.9	14
	Woods	74.3	15	--	42	28.9	52	12.7	12	100.0	1	56.8	12	0.9	58
	Cotton	60.0	30	--	42	25.3	58	7.6	20	89.9	21	45.6	43	94.9	20
Haskell	100.0	1	--	42	100.0	1	19.4	6	83.3	36	50.4	26	100	1	
Mayes	49.8	35	19.0	9	31.5	45	2.5	47	86.0	31	41.1	58	96.7	16	
LOW RISK	Group	56.8		7.8		29.0		2.7		70.1		36.2		53.3	
	Creek	97.6	2	12.9	16	46.9	22	2.1	56	94.1	15	47.0	39	99.4	5
	Latimer	100.0	1	--	42	73.0	4	14.6	11	58.1	59	36.3	70	100.0	1
	Stephens	61.7	25	9.6	23	30.4	50	1.3	67	92.8	17	46.3	40	80.0	30
	Lincoln	61.2	26	10.5	20	31.4	47	2.0	59	70.7	53	37.0	68	62.8	38
	Grady	100.0	1	8.8	25	55.7	16	0.4	73	80.9	44	39.9	63	62.2	40
	Washita	90.6	5	--	42	38.5	32	4.1	29	82.6	39	43.7	54	61.1	41
	Grant	77.8	11	--	42	33.8	41	3.4	37	100.0	1	51.8	21	53.4	49
	Kingfisher	51.0	34	28.2	2	37.2	35	6.1	23	100.0	1	61.3	7	75.2	32
	Noble	100.0	1	11.8	18	53.4	18	4.8	27	75.0	49	44.0	51	54.2	46
	Dewey	5.6	52	--	42	2.4	76	0.0	74	87.3	28	42.0	57	56.4	43
	Payne	56.7	33	14.9	14	31.5	46	2.4	52	89.2	24	43.6	55	94.5	21
	Canadian	61.0	27	3.3	37	27.2	55	2.3	55	73.8	51	36.6	69	37.0	53
	Ellis	83.3	8	--	42	34.7	39	1.8	61	100.0	1	55.5	13	100.0	1
	Rogers	58.0	31	6.3	28	28.0	53	1.9	60	64.1	56	31.9	73	54.2	47
	McClain	42.1	39	7.4	27	21.7	63	3.2	39	97.8	5	49.9	29	73.7	34
	Major	100.0	1	--	42	38.7	31	8.3	16	94.8	11	51.6	23	63.6	37
	Wagoner	28.5	47	2.8	39	13.3	72	1.0	71	35.5	62	18.0	77	57.3	42
	Logan	68.1	19	17.1	13	38.4	33	1.1	70	45.5	60	24.1	75	35.5	54
	Roger Mills	75.0	13	--	42	32.9	42	1.4	66	100.0	1	75.9	1	98.8	7
Cleveland	26.1	48	4.9	35	13.5	71	4.0	31	58.5	58	30.9	74	5.4	57	
Alfalfa	100	1	--	42	65.4	8	0.0	74	100	1	66.7	4	75.8	31	

Appendix 12. Program reach: Child care (R denotes rank)

See color coding in Appendix 10. Some counties may have different rankings but the same percent due to rounding.

		Licensed centers		Overall capacity		Quality (2 & 3 Star) capacity		OKDHS contractors		Subsidy to capacity		Quality (2 & 3 Star) subsidy enrollment	
		%	R	%	R	%	R	%	R	%	R	%	R
	Oklahoma	42.1		72.8		47.6		59.7		50.7		93.8	
HIGH RISK	Group	47.2		58.7		37.5		57.3		48.8		92.1	
	Harmon	16.7	59	55.1	45	22.1	60	33.3	54	92.9	4	30.8	65
	Tillman	37.5	41	26.7	75	4.4	72	25.0	58	135.7	1	63.2	64
	Texas	20.0	58	29.1	73	8.1	70	55.0	29	53.9	36	89.4	44
	Adair	33.3	47	27.4	74	9.2	69	46.7	43	42.5	55	66.7	63
	Greer	50.0	24	56.2	44	43.1	23	50.0	39	75.3	11	98.4	7
	Pushmataha	81.8	3	64.7	24	19.0	62	45.5	45	55.0	35	76.7	56
	Cherokee	52.2	22	65.9	23	41.5	26	60.9	22	42.0	56	94.7	23
	Choctaw	65.2	10	72.1	17	36.9	32	47.8	41	86.2	6	95.6	20
	Delaware	64.3	11	55.0	47	41.2	27	64.3	15	43.5	53	99.1	2
	Seminole	55.6	17	43.5	60	23.6	55	44.4	46	71.0	15	96.4	16
	Hughes	100.0	1	69.4	20	36.7	33	66.7	11	51.0	44	86.9	49
	Caddo	60.0	14	87.8	6	55.0	9	42.9	48	61.7	25	98.2	9
	Marshall	61.5	13	52.4	50	29.1	49	46.2	44	40.1	60	99.0	3
	Kay	25.0	56	55.1	46	31.3	46	65.0	13	51.2	43	88.7	47
	Custer	30.6	51	68.5	21	35.2	39	53.1	34	29.0	71	92.3	35
	Jackson	36.7	43	66.1	22	52.5	10	60.0	24	48.9	46	71.7	60
	Ottawa	54.8	18	70.9	18	62.7	4	71.0	6	34.8	66	93.4	28
McCurtain	66.7	9	56.7	40	33.7	42	54.5	30	60.5	29	98.6	5	
Muskogee	44.6	34	61.7	30	48.2	18	67.6	8	44.7	51	93.3	29	
HIGH-MEDIUM RISK	Group	43.0		75.1		49.9		64.3		59.9		95.0	
	Le Flore	47.3	30	58.7	38	27.3	51	67.3	9	62.4	24	89.7	43
	Oklahoma	39.2	40	83.9	9	58.2	7	67.2	10	57.7	31	95.8	19
	Carter	54.5	19	49.9	54	28.8	50	63.6	18	68.5	21	79.2	55
	Coal	85.7	2	84.0	8	33.9	41	42.9	48	69.0	20	96.7	13
	Beckham	43.8	35	77.5	12	36.5	35	34.4	53	78.5	8	88.2	48
	Blaine	40.0	39	49.3	56	14.9	67	46.7	43	86.2	5	89.0	46
	McIntosh	47.4	29	76.5	13	29.8	47	47.4	42	70.5	17	100.0	1
	Okfuskee	53.8	20	73.0	16	8.1	71	38.5	51	124.7	2	83.5	53
	Okmulgee	63.0	12	49.6	55	35.3	38	77.8	2	73.8	12	91.8	38
	Beaver	10.0	62	32.5	71	2.7	73	50.0	39	20.0	74	71.4	61
	Harper	50.0	24	46.3	59	39.8	28	50.0	39	23.1	73	100.0	1
	Pottawatomie	57.1	16	59.1	36	47.1	20	75.5	4	70.0	18	98.9	4
	Atoka	36.4	44	40.8	65	16.7	64	54.5	30	69.1	19	92.4	33
	Pittsburg	43.6	36	77.5	12	42.8	24	64.1	16	52.8	40	93.3	29
	Johnston	70.0	7	56.7	41	17.9	63	30.0	55	112.0	3	100.0	1
	Woodward	37.0	42	82.0	10	51.6	12	48.1	40	47.3	48	96.6	14
	Sequoyah	53.6	21	53.5	49	29.5	48	53.6	33	56.7	32	94.5	24
Love	55.6	17	39.6	67	22.8	57	44.4	46	71.4	14	95.2	21	
Pontotoc	73.1	5	60.6	35	49.7	14	65.4	12	70.5	16	98.5	6	

Appendix 12. Program reach: Child care (cont.)

		Licensed centers		Overall capacity		Quality (2 & 3 Star) capacity		OKDHS contractors		Subsidy to capacity		Quality (2 & 3 Star) subsidy enrollment	
		%	R	%	R	%	R	%	R	%	R	%	R
	Oklahoma												
MEDIUM-LOW RISK	Group	41.6		80.2		53.7		62.0		42.9		92.8	
	Tulsa	40.9	37	88.7	5	59.8	5	63.7	17	38.2	64	92.5	32
	Jefferson	75.0	4	40.7	66	37.6	31	0.0	60	0.0	75	100.0	1
	Pawnee	30.8	50	34.7	70	22.1	59	61.5	20	77.3	10	89.1	45
	Bryan	71.8	6	85.3	7	69.5	3	61.5	20	40.3	59	96.3	17
	Nowata	36.4	44	41.0	64	31.7	45	54.5	30	59.6	30	96.9	11
	Cimarron	50.0	24	64.4	25	0.0	74	50.0	39	71.4	14	0.0	66
	Garfield	34.6	46	56.9	39	36.6	34	59.6	25	60.8	27	96.6	15
	Comanche	48.0	26	77.7	11	56.8	8	74.0	5	56.4	33	93.4	26
	Washington	57.9	15	107.3	1	58.6	6	54.4	31	39.6	61	98.3	8
	Garvin	26.5	55	53.8	48	36.1	37	41.2	49	71.7	13	70.9	62
	Kiowa	28.6	53	104.8	2	82.4	2	50.0	39	50.9	45	94.9	22
	Craig	48.0	27	93.8	3	86.1	1	76.0	3	30.8	70	90.5	42
	Murray	16.7	59	59.1	37	14.0	68	27.8	56	55.8	34	74.1	57
	Osage	31.1	49	56.2	43	32.4	43	60.7	23	34.4	67	90.6	41
	Woods	14.3	60	76.4	14	35.1	40	42.9	48	41.7	57	72.4	58
	Cotton	28.6	53	43.1	62	22.1	60	57.1	27	48.8	47	81.0	54
	Haskell	50.0	24	51.5	53	24.2	53	68.8	7	78.0	9	92.6	31
Mayes	44.8	33	43.5	61	23.9	54	58.6	26	51.8	41	91.8	37	
LOW RISK	Group	38.7		68.4		42.7		52.1		49.2		93.7	
	Creek	51.9	23	62.6	28	49.4	16	55.8	28	63.9	23	98.3	8
	Latimer	45.5	32	36.4	69	16.1	65	54.5	30	41.6	58	72.3	59
	Stephens	67.9	8	60.9	33	48.0	19	64.3	15	60.6	28	99.0	3
	Lincoln	26.5	55	63.5	26	49.1	17	64.7	14	39.2	62	93.1	30
	Grady	48.8	25	56.5	42	32.1	44	51.2	37	39.2	63	85.6	51
	Washita	27.3	54	38.1	68	22.5	58	27.3	57	64.4	22	86.8	50
	Grant	11.1	61	48.8	58	15.9	66	44.4	46	36.4	65	91.7	39
	Kingfisher	30.4	52	61.5	31	36.1	36	43.5	47	45.1	49	92.2	36
	Noble	28.6	53	62.3	29	24.4	52	23.8	59	53.0	39	100.0	1
	Dewey	0.0	63	32.4	72	0.0	74	37.5	52	53.8	37	71.4	61
	Payne	44.0	34	62.8	27	49.6	15	54.0	32	43.4	54	97.0	10
	Canadian	31.2	48	70.2	19	49.9	13	51.3	36	33.9	69	85.4	52
	Ellis	25.0	56	16.5	76	0.0	74	0.0	60	0.0	75	100.0	1
	Rogers	50.0	24	61.3	32	39.3	29	50.0	39	61.4	26	94.1	25
	McClain	45.9	31	75.9	15	52.2	11	51.4	35	44.7	50	93.4	27
	Major	50.0	24	52.2	51	45.7	22	83.3	1	43.8	52	96.8	12
	Wagoner	24.2	57	42.2	63	23.5	56	62.1	19	53.6	38	92.3	34
	Logan	36.1	45	49.1	57	38.3	30	61.1	21	84.6	7	90.7	40
	Roger Mills	40.0	39	60.6	34	41.6	25	40.0	50	28.6	72	91.7	39
Cleveland	40.6	38	91.5	4	46.5	21	51.1	38	51.7	42	96.0	18	
Alfalfa	25.0	56	52.2	52	22.0	61	37.5	52	34.0	68	100.0	1	

Appendix 13. Program reach: Home visitation (R denotes rank)

See color coding in Appendix 10. Reach ratios could not be calculated for Children First, Start Right and SoonerStart.

		OPAT		Children First	Start Right	Sooner Start
		%	R	# mothers	# caregivers	# children
	Oklahoma	4.5		3,572	1,048	8,037
HIGH RISK	Group	2.2		626	262	1,180
	Harmon	--	28	<50	--	--
	Tillman	--	28	<50	--	--
	Texas	--	28	--	<50	53
	Adair	--	28	<50	<50	<50
	Greer	--	28	<50	<50	--
	Pushmataha	--	28	<50	--	<50
	Cherokee	4.9	20	68	54	100
	Choctaw	--	28	<50	--	--
	Delaware	--	28	<50	<50	75
	Seminole	--	28	<50	<50	<50
	Hughes	--	28	<50	<50	<50
	Caddo	8.0	13	<50	--	--
	Marshall	--	28	<50	--	--
	Kay	4.6	22	<50	<50	133
	Custer	--	28	56	<50	123
	Jackson	--	28	51	<50	74
	Ottawa	--	28	75	--	70
	McCurtain	10.8	8	<50	<50	99
Muskogee	--	28	58	--	312	
HIGH-MEDIUM RISK	Group	5.9		995	370	2,675
	Le Flore	6.4	18	77	--	76
	Oklahoma	5.9	19	454	203	1812
	Carter	7.0	17	78	<50	145
	Coal	--	28	<50	--	--
	Beckham	--	28	--	<50	--
	Blaine	2.1	26	<50	--	--
	McIntosh	--	28	<50	--	<50
	Okfuskee	--	28	<50	<50	<50
	Okmulgee	--	28	<50	<50	52
	Beaver	--	28	--	--	<50
	Harper	--	28	<50	--	<50
	Pottawatomie	7.5	15	100	<50	193
	Atoka	--	28	<50	--	--
	Pittsburg	12.8	4	64	--	109
	Johnston	--	28	<50	--	--
	Woodward	10.9	7	<50	--	66
	Sequoyah	11.1	6	<50	--	51
	Love	--	28	<50	<50	--
Pontotoc	8.2	12	<50	58	123	

Appendix 13. Program reach: Home visitation (cont.)

		OPAT		Children First	Start Right	Sooner Start
		%	R	# mothers	# caregivers	# children
MEDIUM-LOW RISK	Group	4.3		865	150	1,683
	Tulsa	4.7	21	652	141	1550
	Jefferson	--	28	<50	--	--
	Pawnee	--	28	--	--	<50
	Bryan	--	28	112	--	166
	Nowata	--	28	--	<50	--
	Cimarron	--	28	--	--	<50
	Garfield	0.9	27	131	<50	178
	Comanche	--	28	<50	<50	260
	Washington	11.3	5	52	<50	168
	Garvin	--	28	<50	<50	--
	Kiowa	10.4	10	<50	<50	--
	Craig	--	28	<50	--	<50
	Murray	26.2	1	<50	<50	--
	Osage	25.7	2	<50	<50	--
	Woods	--	28	<50	<50	<50
	Cotton	--	28	<50	<50	--
	Haskell	--	28	<50	--	<50
Mayes	--	28	<50	--	62	
LOW RISK	Group	4.3		1,086	266	2,499
	Creek	7.3	16	70	<50	166
	Latimer	--	28	<50	--	--
	Stephens	--	28	<50	<50	--
	Lincoln	3.5	24	66	--	60
	Grady	2.6	25	<50	<50	131
	Washita	--	28	--	<50	--
	Grant	--	28	<50	--	<50
	Kingfisher	--	28	<50	--	<50
	Noble	9.7	11	<50	--	<50
	Dewey	--	28	--	--	<50
	Payne	3.8	23	76	--	181
	Canadian	--	28	73	--	211
	Ellis	--	28	--	--	--
	Rogers	--	28	87	--	114
	McClain	10.8	9	<50	<50	--
	Major	--	28	<50	<50	<50
	Wagoner	--	28	<50	--	--
	Logan	17.2	3	89	--	94
	Roger Mills	--	28	--	--	--
Cleveland	7.9	14	233	69	605	
Alfalfa	--	28	<50	<50	--	

APPENDIX 14: NOTES

^a Eighteen (18) variables were originally selected for analysis and subjected to Principal Components Analysis (PCA), a dimension-reduction technique used to reduce variables into a smaller set of uncorrelated variables and to identify variables with high correlations in each set. Four resulting components emerged that consisted of 12 of the 18 variables. These four components and the six variables that did not load onto any component were subjected to Ordinary Least Squares (OLS) multiple regression analysis using third-grade reading proficiency rates as the dependent variable. Although kindergarten reading assessment scores would be a more valid and reliable measure of school readiness, data were not available at the time the index was constructed. Three of the four components and one individual variable were significantly associated with reading proficiency. The individual indicators that comprised these three components and the indicator of migrant child were selected for inclusion in the Risk Index.

^b Migrant was not statistically associated with any component but was significantly associated with third-grade reading proficiency. It is grouped with Hispanic background as it is most highly correlated with the Hispanic and English-language learner variables.

^c Standard scores (more commonly referred to as z-scores) are derived as follows for each indicator. First the average rate from the distribution of rates for each indicator (not state average) is subtracted from the rate for an individual county. This difference is divided by the standard deviation for the distribution. For example, a rate of Hispanic children under age 5 for one county is .227; the average rate for all 77 counties is .128; and the standard deviation is .095. Thus, $(.227 - .128) / .095 = 1.04$. This county's z-score for rate of Hispanic children is 1.04, indicating that it is 1.04 standard deviations above the mean rate for this indicator.

^d The revised methodology compares county-level rates to Oklahoma state averages and classifies into four risk groups. In comparison, prior methodology compared county-level rates to national averages and classified into three risk groups.

^e The following programs and services were used for the Reach Index: HS, EHS, pre-kindergarten 4 year old, pre-kindergarten 3 year old, Oklahoma Parents as Teachers, and the six child care indicators (licensed centers, overall capacity, quality capacity, DHS contractors, subsidy to capacity, and quality subsidy enrollment). Standard scores used in the Index were calculated for all counties, including those that did not have a program (OPAT or EHS), to account for the gap in these counties. For purposes of reporting rank and quartile classifications by county, as listed in the Appendix, z-scores calculated for OPAT and EHS individually excluded counties without these programs.

^f Spearman's Rank Order correlation statistically significant, $r = .3$, $p = .005$.

^g Spearman's Rank Order correlation statistically significant, $r = .39$, $p = .001$.

^h To derive percent of ages served, data from the 2010 US Census were used as these are the most recent estimates available for individual ages. The number of children eligible for each county was estimated by multiplying the total number of children, by age, by estimated percent of children under age 6 at less than 100% of the federal poverty level as reported in ACS 2007-2011 estimates. This resulted in some counties with percentages of children ages 3 and 4 served by HS greater than 100%. Percentages were adjusted down to 100% by modifying total 3 and 4 year olds served by HS in affected counties to reflect number of children for each age reported in the 2010 US Census who would be income eligible. The total number of children served by HS as reported in the text reflects data reported by HS agencies and not adjusted numbers.

ⁱ To derive percent of 3 and 4 year olds served, data from the 2010 US Census were used as these are the most recent estimates available for individual ages. This resulted in some counties with percentages of 4 year olds served greater than 100%. Percentages were adjusted down to 100% by modifying total 4 year olds served in affected counties to reflect number of 4 year olds reported in the 2010 US Census. The total number of children served as reported in the text reflects data reported by Oklahoma State Department of Education and not adjusted numbers.

^j Some counties reflect rates greater than 100%. This is due to differences between how data are collected for subsidized child enrollment (county of residence) and child care provider (county of location). In some instances, these counties may differ.



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