



Early Learning Hub

of Linn, Benton & Lincoln Counties

Regional Data Book

First Edition



Regional Data Book of Linn, Benton & Lincoln Counties

Our Charge

The Regional Data Book presents the resources and challenges facing our region's youngest children who are at risk of arriving at kindergarten unprepared. This data will inform and support strategic decision-making by the Governing Board of the Early Learning Hub of Linn, Benton & Lincoln Counties to align with the LBL Hub outcomes. This data provides a foundational understanding of our region for our Governing Board and community partners in serving children and families.

Children at Risk

Oregon Revised Statutes stipulate that children who are at risk experience chronic and persistent opportunity gaps due to family circumstances beyond their control, such as poverty, drug abuse in the home, unsafe housing, racism or ethnic discrimination, unmet medical needs, parental mental illness, child abuse and/or neglect, or are involved with Department of Human Services (DHS), or families involved in juvenile and adult corrections.

“adverse conditions... have a lasting detrimental effect on the developing brain, even if a child’s circumstances are improved later in childhood.”

— Raise Up Oregon

Executive Summary

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Social and Economic Factors Affecting Young Children

- Children at Risk: Approximately 11,800 children are at risk, which is 71 percent of the total number of young children (16,540) in our region: 9,250 in Linn County, 4,520 in Benton County, and 2,760 in Lincoln County.
- Poverty: 4,300 young children live below 100 percent of the Federal Poverty Level (FPL) and 8,100 young children live below 200 percent of the FPL.
- Race and Ethnicity: 2,226 Hispanic/Latino children under age five live in our region.
 - Hispanic/Latino children living in poverty are the largest non-White population living in poverty.
 - Infants born to mothers who are Hispanic are the largest non-White demographic group.
- Spanish Speakers: Spanish is the dominant non-English language, representing 10 percent of the households with young children;

83 percent of households speak English and seven percent speak another language.

- Parental Employment: 62.3 percent of young children in Linn County, 60.9 percent of young children in Lincoln County, and 52.6 percent of young children in Benton County live in families where all available parents are employed.
- Rural Communities: All areas in our region located outside of metro Albany and Corvallis are identified as rural by the Office of Rural Health. Rural communities face barriers such as lack of transportation, limited access to healthcare, and reduced access to quality child care and education.

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Early Childhood Care

- Availability: There are 5,906 regulated child care slots for children: 4,854 slots in child care centers and 1,052 slots in family child care homes in our region.

Our region is considered a “child care desert” where access to regulated child care is limited for all children with the greatest need among 0-2 year old child care slots.

- Affordability: Median annual price of toddler care in a child care center: \$9,600 in Linn County, \$14,400 in Benton County, and \$7,380 in Lincoln County.

“...lack of affordability often prevents families from accessing quality care and education.”

- Oregon's Child Care Deserts

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Kindergarten Readiness – Kindergarten Assessment (KA) Scores

- On average in 2018-2019, children in our region scored the following:
 - Recognized 6.8 of 26 English Letter Sounds, 13.5 Uppercase English Letter Names, and 11.1 Lowercase English Letter Names
 - Correctly answered 10.9 of 16 Early Mathematics questions.
 - Demonstrated a score of 3.5 on Approaches to Learning (1–5 scale).
- When comparing children in our region entering kindergarten to children in Oregon during 2014-2019:
 - Average KA Approaches to Learning and Early Mathematics scores are similar to the state average.
 - Average Early Literacy scores are consistently below the state average.
- The average scores of the following demographic groups are below the LBL Hub average during 2014-2019:
 - Children with disabilities and children who are economically disadvantaged scored below the LBL Hub averages on Approaches to Learning, Early Mathematics, and Early Literacy.
 - Hispanic children, Native American children, and children with limited English proficiency scored below the LBL Hub average on Early Mathematics and Early Literacy

- Boys scored below the EL Hub average on Approaches to Learning and Early Literacy.

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Kindergarten Assessment – Approaches to Learning Scores (KA-AL) and Third Grade Reading (TGR) Scores

- We conducted a statistical analysis that compared the 2014-2015 KA-AL scores and 2017-2018 TGR scores for the same cohort of children.
 - Children with disabilities, children with limited English proficiency, and children who are economically disadvantaged scored lower than their counterparts.
 - Children in Benton County scored higher than in Linn County, who scored higher than in Lincoln County.
 - Black, Hispanic, American Indian/Alaskan Native children scored lower on average compared to White children.
 - White children scored lower on average compared to Asian children.
- There is a significant positive relationship between KA-AL scores and TGR scores.

The effect of KA-AL scores on TGR scores is not the same for all groups of children. KA-AL on TGR score differences were observed among children with limited English proficiency, and children who are economically disadvantaged compared to other children. There are also differences across the counties.

Child Abuse and Neglect

Oregon DHS reported that 51.1 percent of all child abuse and neglect victims were six years old or younger in 2017.

- In our region, 42 children under age 6 were sheltered in domestic violence prevention programs.**

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Health and Wellbeing

- Access to Prenatal Care: Younger mothers (under age 25) were less likely to access adequate prenatal care.
 - There were 331 teen pregnancies in our region in 2017.
- Oregon Health Authority (OHA) Coordinated Care Organization (CCO) Incentive Measure Benchmarks, 2016 and 2017: Inter-Community Health Network Community Care Organization (IHN-CCO), which is the CCO for our region, achieved two of the five quality metrics related to pregnant women and children ages 0–5:
 - IHN-CCO met the 2016 and 2017 benchmarks for Developmental Screenings.
 - IHN-CCO met the 2017 benchmark for Timeliness of Prenatal Care.
- Food Security: 27 percent of children live in a food insecure household.
- Homelessness: 9 of the region's 12 school districts have a higher proportion of students experiencing homelessness compared to the state average.



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Introduction

Purpose

The Regional Data Book for the Early Learning Hub of Linn, Benton & Lincoln Counties is intended to guide and support strategic decision-making by the Governing Board in order to increase family stability, improve kindergarten readiness, and ensure service coordination that is equitable and culturally and linguistically competent for our region. In addition, it is our hope that our community partners will find this data useful as they serve children and families.

Overview

The Data and Evaluation work group is a committee of the Early Learning Hub and was formulated in the infancy of the LBL Hub structure. This group exists to ensure that our Hub has the data it needs to make decisions informed by an understanding of the target population and progress towards outcomes. Along that vein, this document was born from the Governing Board's desire to have a consolidated repository of early childhood data useful for making data informed decisions.

The following document presents health, education, social, and economic factors for our target population of children ages 0–6. This includes the following sections:

- 1. Introduction:** Provides the Early Learning Hub 2017-2019 Goals and Roles and Responsibilities, as well as a description of our region and various demographic factors of the target population and their families.
- 2. Kindergarten Readiness:** Analyzes kindergarten assessment (KA) results and identifies high priority areas using multiple variables that can affect school success. This section includes an analysis of de-identified KA scores and third grade reading scores for the same cohort of children. Finally, we include data regarding the status of early care and education in each county.
- 3. Stable and Attached Families:** Presents factors influencing maternal and infant health, such as mother's prenatal care, substance abuse during pregnancy, and teen pregnancy. This section also includes factors influencing child health, such as access and quality of care, and indicators of health status for children in our region.

Great care has been taken to ensure that our data is up-to-date and accurate.

Contributing members of the Data & Evaluation work group include:

- Jerri Wolfe, Co-Chair
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Contributing Early Learning Hub Staff include:

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Early Learning Hub of Linn, Benton & Lincoln Counties

2017-2019 Early Learning Hub Goals

- **Goal 1:** Create an early childhood system that is aligned, coordinated, and family-centered.
- **Goal 2:** Ensure that children arrive at school ready to succeed.
- **Goal 3:** Ensure that Oregon's young children live in families that are healthy, stable, and attached.

Hub Roles & Responsibilities

For the 2017-2019 biennium, the Early Learning Council adopted "Hub Roles & Responsibilities" to define the shared work and expectations for the sixteen Early Learning Hubs in Oregon.

These Roles & Responsibilities are intended to:

- Support Hubs in focusing and refining their work.
- Ensure a shared understanding of the work across the early learning system and the Hubs.
- Guide development of progress indicators.
- Inform the Hub monitoring and accountability process.

In this data book, the "Introduction" and "Kindergarten Readiness" sections support Hub Roles & Responsibilities 2.3 and 2.4:

- **2.3:** The role of the Hub is to work with partners to coordinate identification of children & families from focus and priority populations, to recruit them for early learning activities, enroll them in services, and make timely referrals with smooth transitions.
- **2.4:** The role of the Hub is to work with community partners to increase the percentage of children from focus and priority populations who experience early learning activities that prepare them for success in school.

The "Stable and Attached Families" section supports Hub Roles & Responsibilities 3.2, 3.3, and 3.4:

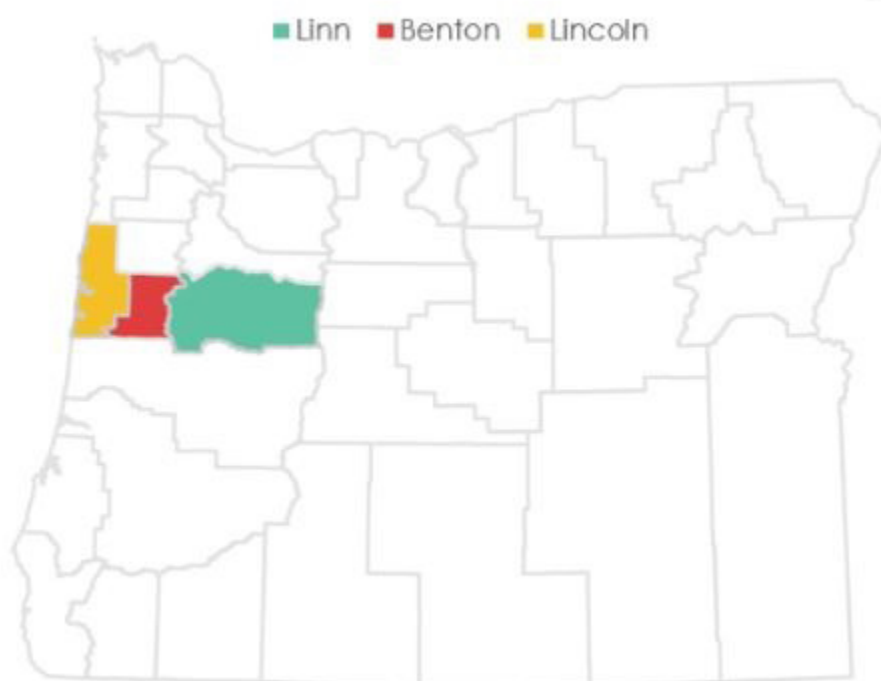
- **3.2:** The role of Hub is to collaborate with the health sector to address the social determinants of health that lead to health and well-being for young children and their families.
- **3.3:** The role of the Hub is to work with community partners to increase protective factors and reduce childhood experiences of abuse or neglect.
- **3.4:** The role of the Hub is to work with community partners to ensure children and families from focus and priority populations have access to medical, dental, mental health and other health care services.

Early Learning Hub Region

The following section describes our region in regards to geographic, demographic, economic, and social factors that affect young children and their families.

Focus Population

Our focus population is children under age six and their families residing in Linn, Benton and Lincoln counties. Specifically, children who are defined by the Oregon Revised Statutes as at risk for arriving at kindergarten unprepared. Children who are at risk experience chronic and persistent opportunity gaps due to family circumstances beyond their control, such as poverty, drug abuse, unsafe housing, race, ethnicity, unmet medical needs, parental mental illness, child abuse and/or neglect, or are or involved with Department of Human Services (DHS), or families involved in juvenile and adult corrections (Oregon Laws 2012, Chapter 37, Section 12).



Geographic, Demographic, Social, and Economic Diversity

In general, the LBL Hub's three counties vary greatly:

Linn County

Linn County extends from the Cascade Range across the Willamette Valley. Linn County is the largest of the three counties in total area (2,297 square miles), population (125,047), and percent of children under age five (U.S. Census QuickFacts, 2017). Linn County has the most people unemployed and the highest unemployment rate.

- The largest racial/ethnic groups are White (85.1 percent) and Hispanic/Latino (9.1 percent).
- The most dominant non-English language spoken is Spanish (5.6 percent of the population) (U.S. Census Bureau, 2017).
- Children under age five comprise 6.2 percent of the population (U.S. Census QuickFacts, 2017).
- The largest racial/ethnic groups for children under age five by race are White (5,696) and Hispanic/Latino (1,146) (U.S. Census Bureau, 2016).
- In 2017, the median household income was \$49,515, and 14.3 percent of the population were persons living in poverty (U.S. Census QuickFacts, 2017).
- The economy is supported by agriculture, forest products, rare metals, manufacturing, and recreation (Oregon Secretary of State, 2019).
- There are 3,248 total people unemployed; the unemployment rate is 5.2 (State of Oregon, Employment Department, January 2019).

Benton County

Benton County is located between Linn County and Lincoln County and extends into the Coastal Range. The smallest of the three counties in total area (679 square miles), Benton County's population is 90,951, and it has the highest median income (Census population estimates July 1, 2017).

- The largest racial/ethnic groups are White (80.5 percent), Hispanic/Latino (7.5 percent), and Asian (6.7 percent)
- The most dominant non-English language spoken is Spanish (5.8 percent of the population) (U.S. Census Bureau, 2017).
- Children under age five comprise 4.2 percent of the population (U.S. Census QuickFacts, 2017).
- The largest racial/ethnic groups for children under age five by race are White (2,649), Hispanic/Latino (557), and Asian (176) (U.S. Census Bureau, 2016).
- In 2017, the median household income was \$54,682 and 16.0 percent of the population were persons living in poverty (U.S. Census QuickFacts, 2017).
- The economy is supported by agriculture, forest products, research and development, electronics, and wineries (Oregon Secretary of State, January 2019).
- There are 1,654 total people unemployed; the unemployment rate is 3.4 (State of Oregon, Employment Department, January 2019).

Lincoln County

Lincoln County extends along the Pacific Coast. The smallest population (48,920) of the three counties, Lincoln County has an area of 992 square miles. Lincoln County has the lowest median income (Census population estimates July 1, 2017).

- The largest racial/ethnic groups are White (82.4 percent), Hispanic/Latino (9.3 percent), and American Indian/Alaskan Native (4.0 percent).
- The most dominant non-English language spoken is Spanish (6.2 percent of the population) (U.S. Census Bureau, 2017).
- Children under age five comprise 4.7 percent of the population (U.S. Census QuickFacts, 2017).
- The largest racial/ethnic groups for children under age five by race are White (1,438), Hispanic/Latino (523), and American Indian/Alaskan Native (106) (U.S. Census Bureau, 2016).
- In 2017, the median household income was \$43,291 and 16.2 percent of the population were persons living in poverty (U.S. Census QuickFacts, 2017).
- The economy is supported by tourism, government, services and retail, forest products, and fishing (Oregon Secretary of State, 2019).
- There are 1,237 total people unemployed; the unemployment rate is 5.2 (State of Oregon, Employment Department, January 2019).

Educational Attainment Level

The U.S. Bureau of Labor Statistics reported that more education is linked to higher income and better employment opportunities (Vilorio, 2016). Across our region, the education levels of adults in poverty varies by county.

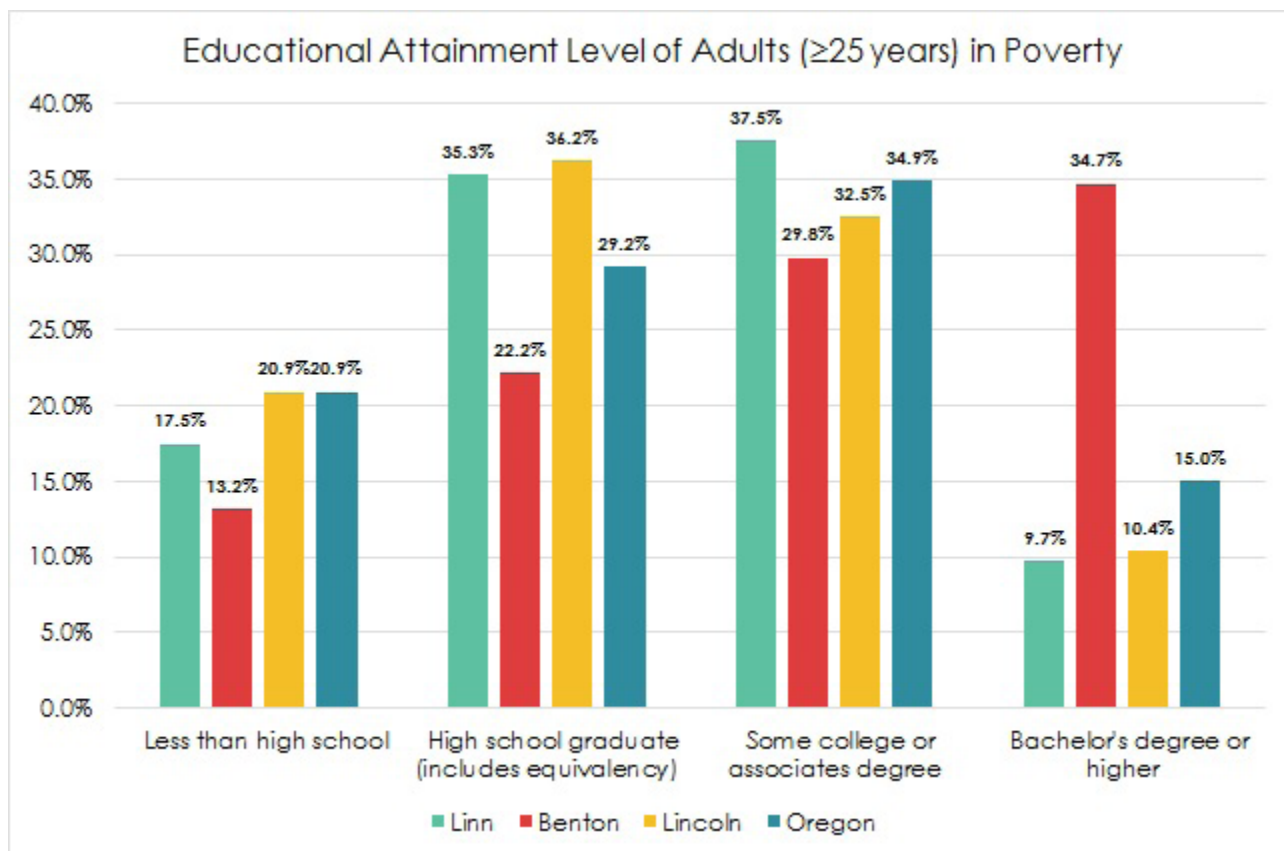


Figure 1. Educational attainment level of adults (25 years and older) in poverty in Linn, Benton, and Lincoln Counties. Data from 2012-2016 American Community Survey 5-year estimates, U.S. Census Bureau.

- 20.9 percent of people living in poverty in **Lincoln County** and in Oregon have less than a high school education, which is higher than **Linn** (17.8 percent) and **Benton** (13.2 percent) counties.
- 34.7 percent of people living in poverty in **Benton County** have a Bachelor's Degree or higher which is significantly higher than **Linn County** (9.7 percent), **Lincoln County** (10.4 percent), and Oregon (15.0 percent). This may be due to graduate students attending Oregon State University.

Urban and Rural Areas

Our region is comprised largely of rural communities, with the exception of two areas that meet the definition of urban. The Census Bureau (2010) identifies two types of urban areas:

- Urbanized Areas (UAs) of 50,000 or more people.
- Urban Clusters (UCs) of at least 2,500 and less than 50,000 people.

Those areas that meet the definition of **urban** include:

- Albany Urban Area, which includes Jefferson, Millersburg, and Tangent.
- Corvallis Urban Area, which includes Philomath.

The Office of Rural Health (2019) identifies **rural** areas as any geographic areas in Oregon ten or more miles from the centroid of a population center of 40,000 people or more.

Those areas that meet the definition of rural include:

- **Linn County:** All of the county outside of the Albany Urban Area.
- **Benton County:** All of the county outside of the Corvallis/Philomath Urban Area.
- **Lincoln County:** All of Lincoln County is designated as rural, and includes the tribal headquarters of the Confederated Tribes of the Siletz Indians.



In comparison to urban areas, rural communities in our region face additional barriers, such as lack of transportation, limited access to healthcare, and reduced access to quality child care and education.

Schools and School Districts

There are 12 school districts and 52 schools in the Linn, Benton, Lincoln Education Service District (ESD):

Linn County

- Central Linn School District
- Greater Albany Public Schools
- Harrisburg School District
- Lebanon Community School District
- Santiam Canyon School District
- Scio School District
- Sweet Home School District

Benton County

- Alsea School District
- Corvallis School District
- Monroe School District
- Philomath School District

Lincoln County

- Lincoln County School District

Maps of the school catchment areas (i.e. attendance boundaries) and school districts are available on the "Oregon School Districts/Agencies" page of the www.oregon.hometownlocator.com website.

Children in Linn, Benton, & Lincoln Counties

Children At Risk

According to the 2012-2016 American Community Survey (ACS), there are an estimated 16,541 children under age six in our region. The Early Learning Division used 2016 SNAP enrollment data to estimate the number of children under age six considered at risk (11,811). SNAP is the federal nutrition assistance program for low-income individuals and families. Please refer to Appendix A for all counts of SNAP enrollment and total number of children under age six in each county.

Figure 2 demonstrates a high level of need among families with children under age six. The majority of these children in each county are considered at risk. It is important to note that there may be children who meet the definition of at risk but are not currently enrolled in the SNAP program.

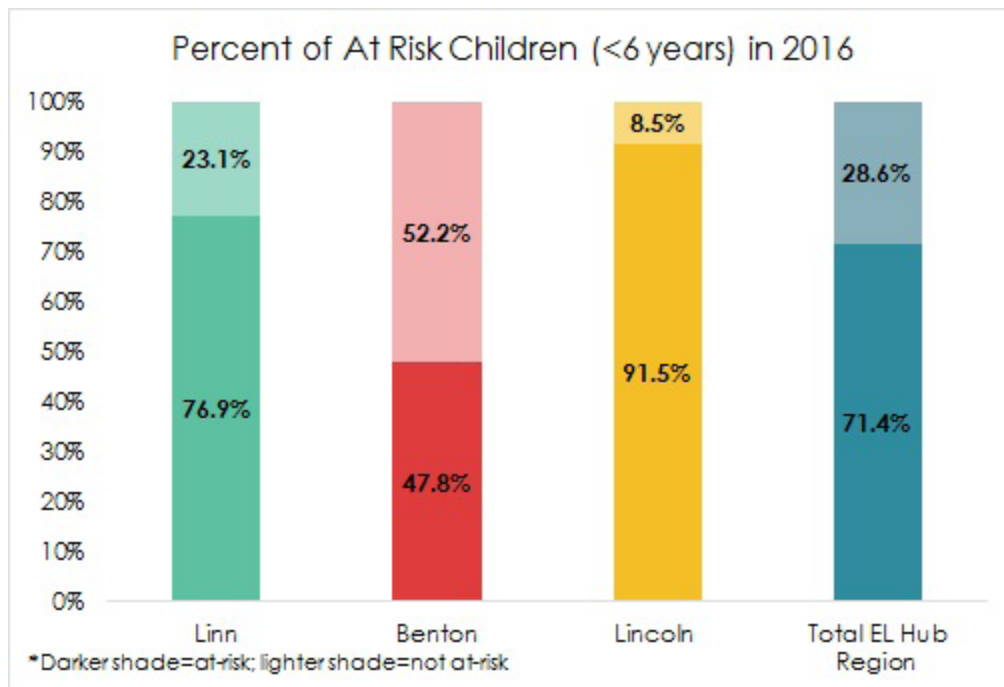


Figure 2. Percent of children (<6 years) considered at risk in Linn, Benton and Lincoln Counties in 2016. Data from 2012-2016 American Community Survey 5-year estimates, U.S. Census Bureau; 2016 SNAP Enrollment, Oregon Department of Human Services.

According to the Oregon Department of Human Services, there were 11,811 children considered at risk in our region in 2016, which is 71.4 percent of the estimated total number of children (16,541).

- In **Benton County**, almost one-half (47.8 percent) of children (4,521 est.) under age six are at risk (2,162 children).
- In **Linn County**, 76.9 percent of children (9,257 est.) under age six are at risk (7,121 children).

- In **Lincoln County**, 91.5 percent of children (2,763 est.) under age six are at risk (2,528 children).

Children (≤6 years) Living Below 100 Percent of the Federal Poverty Level (FPL)

The FPL is a measure of income issued every year by the U.S. Department of Health and Human Services (HHS) and is used to determine eligibility for certain government programs and benefits. For example, the 2018 guidelines indicate that a family of four is considered living below the FPL if earning an annual salary less than \$25,100. Programs often determine a family's eligibility based on a percentage of the FPL, such as 130 percent or 200 percent.

Estimated Total Number of Children (≤6 years) Living Below 100 Percent of the FPL

Linn County: 2,461
Benton County: 834
Lincoln County: 878
EL Hub Region: 4,173
Oregon: 63,962

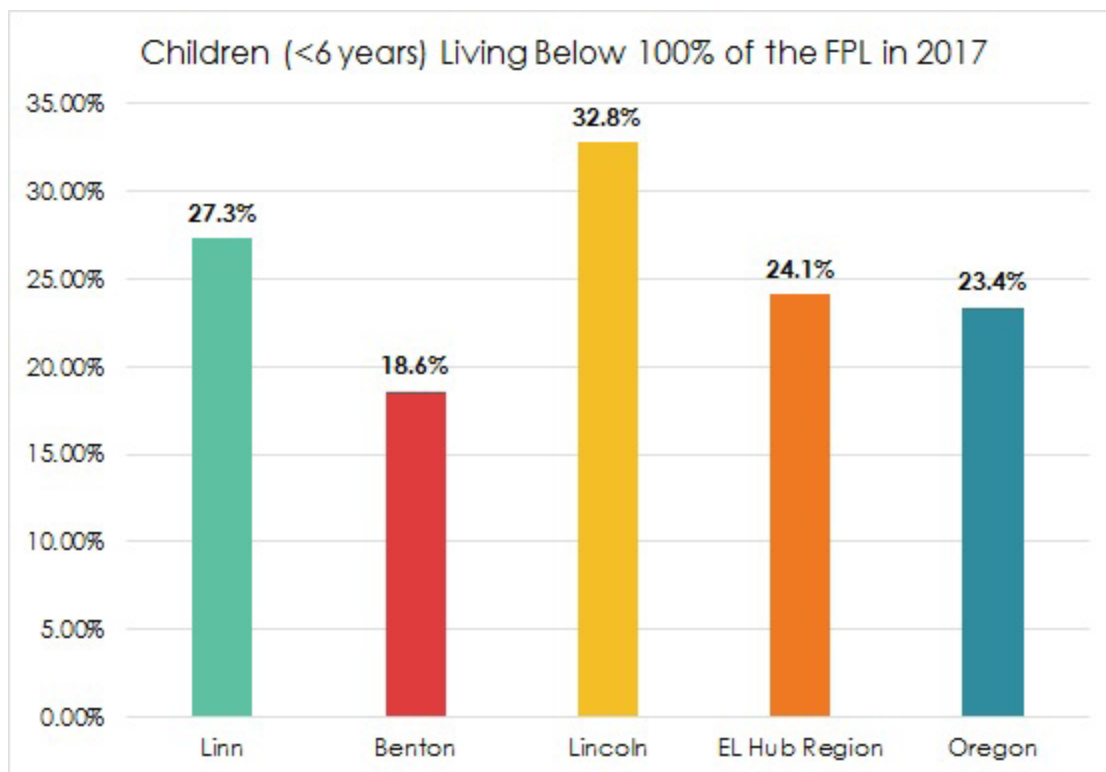


Figure 4. Children (<6 years) living below 100% of the FPL in 2017. Data from 2012-2016 American Community Survey 5-year estimates, U.S. Census Bureau.

- The percent of children living in poverty in our region (24.1) is similar to Oregon (23.4).
- **Linn County** has the highest number (2,461) of children living in poverty, which is almost three times the number in either **Lincoln** (878) or **Benton** (834) counties.
- **Lincoln County** has the highest percent (32.8) of children living in poverty.

Children (<6 years) Living Below 200 Percent of the Federal Poverty Level (FPL)

Children who live in families with income up to 200 percent of the FPL qualify for Preschool Promise, a free high-quality program. Enacted by the Legislature in 2015, Preschool Promise is currently offered by nine of 16 Early Learning Hubs in Oregon; the LBL Hub does not currently offer Preschool Promise. Opportunities for expansion to other areas may be available in the future.

Estimated Total Number of Children (<6 years) Living Below 200 Percent of the FPL

Linn County: 4,872

Benton County: 1,601

Lincoln County: 1,626

EL Hub Region: 8,099

Oregon: 128,605

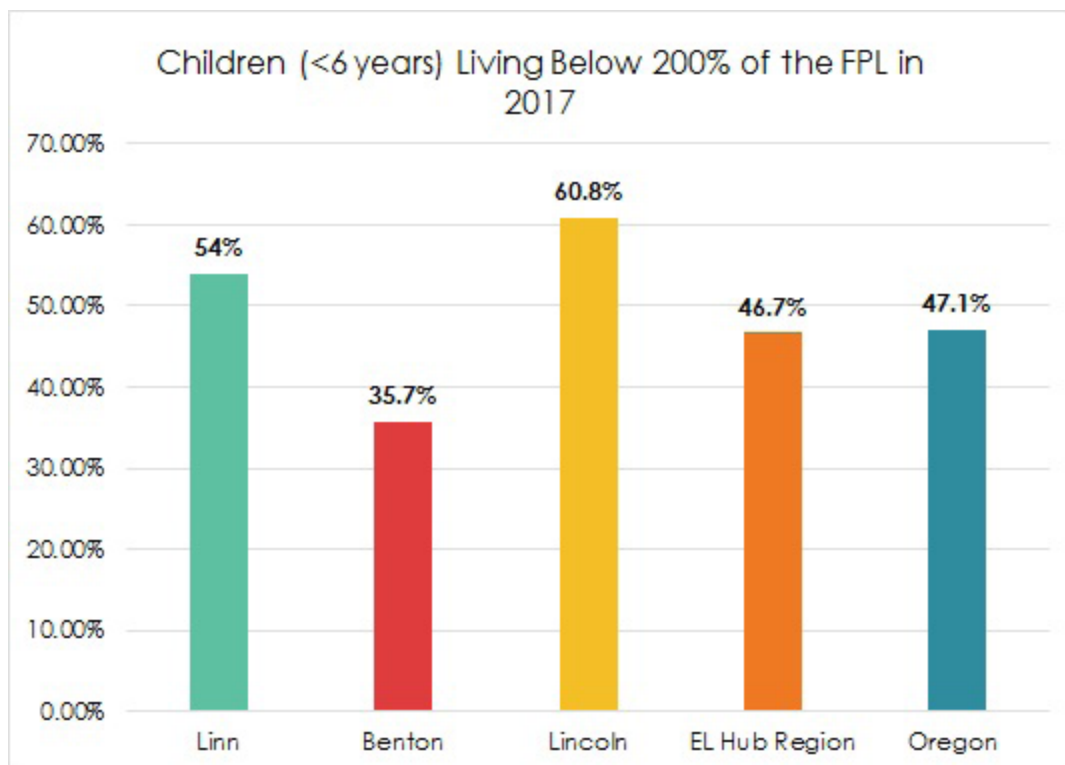


Figure 5. Children (<6 years) living below 200% of the FPL in 2017. Data from 2012-2016 American Community Survey 5-year estimates, U.S. Census Bureau.

- The percent of children living below 200 percent of the FPL in our region (46.7) is similar to Oregon (47.1).
- At 1,626 children, **Lincoln County** has the highest percentage of children living below 200 percent of FPL (60.8).
- **Linn County** has the highest number of children living below 200 percent of FPL (4,872).
- At 1,601 children, **Benton County** has the lowest percentage of children (35.7) living below 200 percent of the FPL.

- In **Lincoln County**, 91.5 percent of children (2,763 est.) under age six are at risk (2,528 children).

Children in Poverty (≤6 years) by Race/Ethnicity

Each county in our region has notable differences for children under age six in poverty by race and ethnicity.

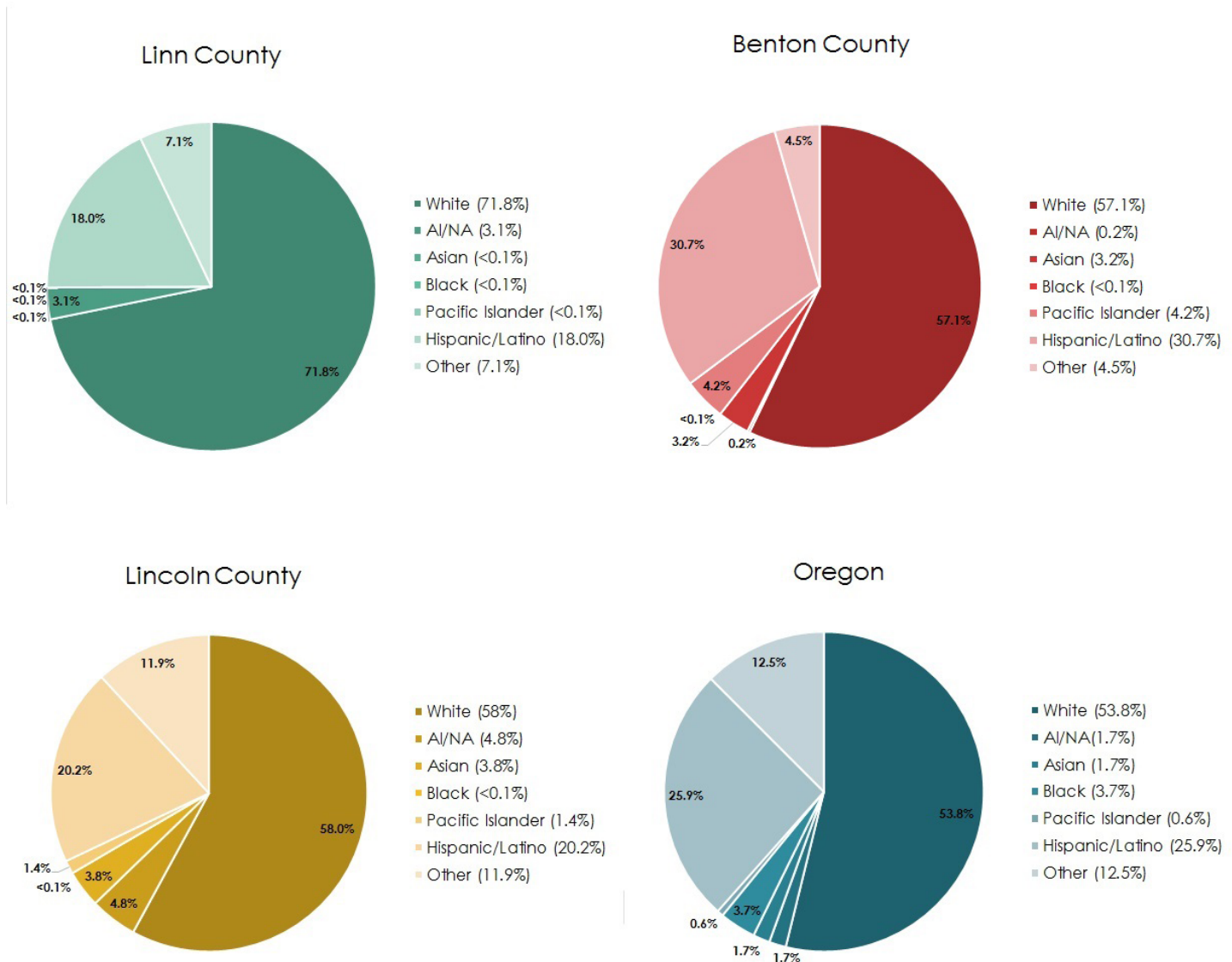


Figure 3. Children in poverty (<6 years) by race/ethnicity in Linn, Benton, and Lincoln Counties & Oregon in 2016. Data from 2012-2016 American Community Survey 5-year estimates, U.S. Census Bureau.

Note: Appendix B has the **number** of children in poverty by race/ethnicity in Linn, Benton, and Lincoln counties.

- The largest non-White percentage of the population living in poverty is Hispanic/Latino for our region and in Oregon.
- **Benton County** has the largest percent (30.7) of Hispanic/Latino children in poverty in our region, which is also larger than that of Oregon (25.9 percent).
- Although **Linn County** has the smallest percent (18 percent) of Hispanic/Latino children in poverty, they have the largest number (542 children).
- The largest racial/ethnic group in our region is White, and **Linn County** (2,157) has over three times the number of White children in poverty compared to **Lincoln** (638) or **Benton** (688) counties.

Appendix A

Total # Children (<6 years) and Children Enrolled in SNAP, 2016			
Area	2016 Estimated Total # Children (<6 years)	Total Children Enrolled in SNAP	% of SNAP Eligible Children
Linn	9,257	7,121	76.9%
Benton	4,521	2,162	47.8%
Lincoln	2,763	2,528	91.5%
Total EL Hub	16,541	11,811	71.4%

Data from Oregon Department of Human Services, 2016.

Appendix B

Total Children (<6 years) in Poverty by Race/Ethnicity, 2016				
Race	Linn	Benton	Lincoln	Oregon
White	2,157	688	638	46,501
AI/AN	93	3	53	1,473
Asian	*	38	42	1,472
Black	*	*	*	3,175
NH/PI	*	51	15	551
Hispanic/Latino	542	370	222	22,398
Some other race	134	*	26	4,892
Two or more races	77	54	104	5,898

Children in poverty (<6 years) by race/ethnicity in Linn, Benton, and Lincoln Counties & Oregon in 2016. Data from 2012-2016 American Community Survey 5-year estimates, U.S. Census Bureau. *Data is not available for this group.

Kindergarten Readiness

The Oregon Department of Education (ODE) and the Early Learning Council (ELC) developed the Oregon Kindergarten Assessment (KA) to measure areas of kindergarten readiness. The KA includes self-regulation, social competency, and aspects of early achievement (literacy and math).

The KA offers local and statewide data for policy makers and is a tool to identify opportunity gaps for funding and service allocation to achieve the greatest impact on young children. The assessment data also indicates success over time. Oregon KA domains are strongly linked to Third Grade Reading scores and future academic success (ODE, 2018).

Oregon Kindergarten Assessment

The KA began, in its current form, in the 2013-2014 school year. In the fall of each school year, local school educators administer the KA to children as they enter kindergarten, which provides a snapshot of their early math, early literacy, and approaches to learning skills prior to their school experience. School catchment areas (i.e. attendance boundaries) usually define which school children will attend.

The KA should not be viewed as a pass or fail test for children or their families, but rather an opportunity for teachers and guardians to better understand and support early learning opportunities before they reach kindergarten. The ELC states that children who arrive at kindergarten with strong social-emotional skills, as measured by the KA, are more likely to be on track in third grade reading and math (2019).

Note: In 2016–2017, Early Literacy: English Letter Names and English Letter Sounds were no longer timed, and the scales were changed. Also, in 2016–2017, the assessment for Early Literacy: English Letter Names was split into upper and lowercase letters.

Kindergarten Assessment Category	Assessment Method	Description
Approaches to Learning	Educator observes and records child's interactions with other children and classroom materials using the Child Behavior Rating Scale (CBRS). A final score between 1 and 5 is given using the average score of all 15 items.	<ul style="list-style-type: none"> Assessment focuses on a child's approaches to learning, self-regulatory skills, and interpersonal skills. CBRS is strongly predictive of reading and math achievement in elementary grades and has been validated in a wide range of cultural contexts.

Kindergarten Assessment Category	Assessment Method	Description
Early Mathematics*	A test administrator asks the child math questions, one question at a time. The child responds by pointing to the answer or responding verbally to 16 multiple choice question. Final scores range from 0 to 16.	<ul style="list-style-type: none"> Questions were developed by Oregon educators also included measures from the easyCBM, a nationally recognized assessment method. easyCBM provides benchmarking and progress monitoring in math Non-easyCBM items strongly align with Early Learning and Common Core State Standards and include geometry, measurement and data, and counting and cardinality.
Early Literacy* (English Letter Name and Sound Recognition)	Children identify as many letter sounds and names as they can. A test administrator records their score out of 26 for each sub-category.	<ul style="list-style-type: none"> The English Letter Name Recognition measure is comprised of two distinct parts, uppercase and lowercase letter recognition. The English Letter Sound Recognition measure focuses on letter sound recognition.

*Spanish speakers are given the Early Literacy portion in both English and Spanish. Spanish speakers are given the Early Mathematics portion in their preferred language.

For more detailed information about the KA and/or parent's frequently asked questions, please visit the Oregon Department of Education website.

Linn, Benton, and Lincoln Kindergarten Assessment Results

Annually, the Oregon Department of Education (ODE) publishes aggregated Kindergarten Assessment (KA) results for the state, Early Learning Hubs, school districts, and schools. Our region has 12 school districts and 52 schools.

To understand KA results in our region, the Data and Evaluation work group asked two questions:

1. How does the LBL Hub compare to the state for each of the KA categories? Answers to this question are included below.
2. Which demographic groups of children are below the LBL Hub average? The demographic groups used in our KA results include: Economically Disadvantage, Limited English Proficiency, Males/Females, Students with Disabilities, Native American, and Hispanic.

EL Hub vs. Oregon: Kindergarten Assessment Scores

Approaches to Learning (total) — Average Rating (1-5)					
Demographic	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
EL Hub	3.7	3.6	3.6	3.6	3.5
Oregon	3.7	3.6	3.6	3.6	3.6
Economically Disadvantaged	3.6	3.5	3.5	3.5	*
Students with Disabilities	3.1	3.0	3.0	3.0	*
Limited English Proficient	3.8	3.6	3.5	3.5	*
Male	3.5	3.4	3.4	3.4	3.4
Female	3.9	3.8	3.7	3.7	3.7
Hispanic	3.8	3.6	3.5	3.6	3.6
American Indian/Alaskan Native	3.3	3.6	3.6	3.3	3.2

* Indicates that the data is missing or the sample size is <8.

Approaches to Learning (Total)

- The LBL Hub's averages for Approaches to Learning (total) consistently match the state's averages until 2018–2019 when our Hub's average (3.5) dropped below the state's average (3.6).
- Students with disabilities scored the lowest for all the demographic groups in all the years for Approaches to Learning (total).
- Males consistently score below females across all years and all categories.
- Males and children who are economically disadvantaged scored below our Hub average in all years.

Early Mathematics — Average Number Correct (0-16)

Demographic	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
EL Hub	8.0	8.5	8.7	11.4	10.9
Oregon	8.0	8.0	8.5	11.2	11.1
Economically Disadvantaged	7.5	8.0	8.1	10.7	*
Students with Disabilities	6.6	7.1	7.0	9.0	*
Limited English Proficient	6.7	7.2	7.0	9.4	*
Male	8.0	8.6	8.7	11.3	10.7
Female	8.0	8.4	8.6	11.5	11.1
Hispanic	7.0	7.4	7.4	10.2	9.9
American Indian/Alaskan Native	7.0	7.8	9.0	10.2	9.5

* Indicates that the data is missing or the sample size is <8.

Early Mathematics

- The LBL Hub's averages match or exceed the state from 2014–2015 to 2016–2017. In 2018–2019, the LBL Hub's average was slightly below the state's average. There was also a sharp increase in Early Mathematics scores in 2018–2019 from previous years, which may be due to changes in assessment implementation during this year.
- Students with disabilities scored the lowest for all the demographic groups in all the years for Early Mathematics.
- Children with disabilities, Hispanic children, and children with limited English proficiency consistently scored below our Hub average for Early Mathematics for all the years.
- Native American children scored below our Hub average for Early Mathematics for four out of five years (in 2016-2017 Native American children scored above the EL Hub average).

Early Literacy: English Letter Names — Average Number Correct (0-26)

Demographic	Uppercase English Letter Names 2016-2017	Lowercase English Letter Names 2016-2017	Uppercase English Letter Names 2017-2018	Lowercase English Letter Names 2017-2018	Uppercase English Letter Names 2018-2019	Lowercase English Letter Names 2018-2019
EL Hub	14.6	12.2	14.4	12.0	13.5	11.1
Oregon	14.8	12.5	14.5	12.1	14.3	11.7
Economically Disadvantaged	12.2	10.0	12.2	9.9	*	*
Students with Disabilities	10.8	8.5	11.0	8.9	*	*
Limited English Proficient	6.5	5.2	7.6	6.4	*	*
Male	14.4	11.9	14.3	11.9	12.7	10.4
Female	14.9	12.4	14.5	12.1	14.4	11.8
Hispanic	9.0	7.5	9.8	8.1	9.8	8.3
American Indian/ Alaskan Native	11.5	8.7	15.3	11.6	10.1	8.1

* Indicates that the data is missing or the sample size is <8.

Early Literacy: English Letter Names

- The LBL Hub's averages in these categories generally fall short of the state average.
- The LBL Hub is trending down from 2016 to 2018.

Note: In 2016-2017, Early Literacy: English Letter Names was no longer timed, the scales were changed, and the assessment was split into upper and lowercase letters. For this reason, school years 2014-2015 and 2015-2016 are not included in this report for Early Literacy.

Early Literacy: English Letter Sounds — Average Number Correct (0-26)

Demographic	2016-2017	2017-2018	2018-2019
EL Hub	8.6	7.8	6.8
Oregon	8.9	8.2	7.7
Economically Disadvantaged	6.5	5.8	*
Students with Disabilities	4.8	4.8	*
Limited English Proficient	2.8	3.2	*
Male	8.3	7.5	6.1
Female	8.9	8.1	7.6
Hispanic	4.6	4.5	5.0
American Indian/Alaskan Native	4.8	6.6	3.1

* Indicates that the data is missing or the sample size is <8

Early Literacy: English Letter Sounds

- The LBL Hub's averages in these categories generally fall short of the state average.
- In 2016–2017, Early Literacy: English Letter Sounds was no longer timed, and the scales were changed. For this reason, school years 2014–2015 and 2015–2016 are not included in this report for Early Literacy.

Key Findings from the Kindergarten Assessment

- When compared, the LBL Hub region is similar to the state across the multiple years of data on the Approaches to Learning and Math assessments. The same cannot be said for the assessment of English literacy, which looks at English letter names and sound recognition. Our Hub region was consistently lower than the state across the three-year period of 2016–2019.
- The Kindergarten Assessment allows us to identify demographic characteristics of groups of children who are below our Hub average. Children with disabilities and children who are economically disadvantaged are below our Hub average on all three measures of the Kindergarten Assessment, Approaches to Learning, Early Math, and Early Literacy. Hispanic children and children with limited English on average are below our Hub average in Early Math and Early Literacy. On average, Native American children were below our Hub average four out of five years in Early Math and four out of five years in Early Literacy.

- Boys, as a group, score lower than our Hub average across multiple years in both Approaches to Learning and Early Literacy.

Determining High Priority Catchment Areas in Linn, Benton, and Lincoln Counties

Using 2017–2018 Kindergarten Assessment data, Third Grade English Language Arts data, and Free and Reduced lunch eligibility, the Data and Evaluation work group determined high priority catchment areas for our region. While multiple variables can affect school success, we used the following criteria to determine high priority school/catchment areas (the geographic area from which students are eligible to attend a local school):

1. KA Approaches to Learning scores for school/catchment areas that fell below the state average, and
2. Third Grade Reading scores for school/catchment areas that fell below the state average. Data for the same cohort of children in kindergarten and third grade was not available at the time of this analysis, and
3. The percent of children receiving free or reduced price lunch for school/catchment areas above the state average.

A high priority school catchment area was ultimately determined if all three criteria were met.

KA Approaches to Learning scores are used because national research sponsored by the U.S. Department of Education, National Center for Education Statistics (2012) indicates that children with a positive approach to learning are more likely than children with a less positive approach to master reading and mathematics by the end of kindergarten and the end of first grade.

High priority school catchment areas identified for 2017–2018:

Linn County

- Sunrise Elementary School
- Waverly Elementary School
- South Shore Elementary School
- Oak Heights Elementary School
- Tangent Elementary School
- Holley Elementary School
- Periwinkle Elementary School
- Pioneer School
- Hawthorne Elementary School

Benton County

- Alsea Elementary School

Lincoln County

- Eddyville Charter School
- Crestview Heights Elementary School
- Siletz Valley Schools
- Toledo Elementary School

The following graphs include the corresponding 2017–2018 data for each of the 14 high priority school catchment areas, which include: KA Approaches to Learning scores, third grade English Language Arts assessment scores, and free and reduced lunch eligibility.

Kindergarten Assessment - Approaches to Learning (2017-2018)

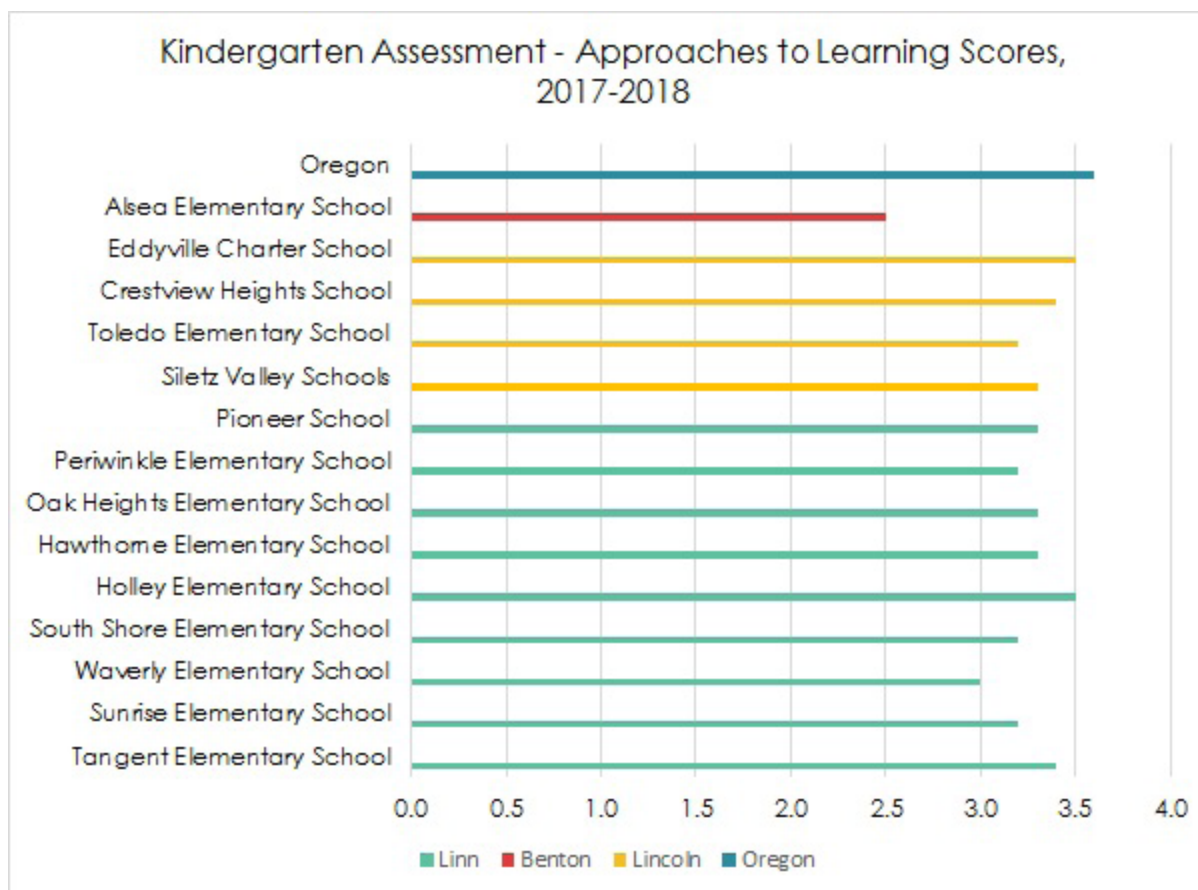


Figure 6. Average KA - Approaches to Learning Score, 2017-2018. Data from 2017-2018 Kindergarten Assessment, Oregon Department of Education.

- During 2017–2018, the average KA Approaches to Learning score for all Oregon students was 3.6.
- The Alsea Elementary School catchment area had the lowest average KA Approaches to Learning score (2.5) in the region. The Waverly Elementary school catchment area had the second lowest score (3.0) in the region.

Grade 3 English Language Arts Proficiency (2017–2018)

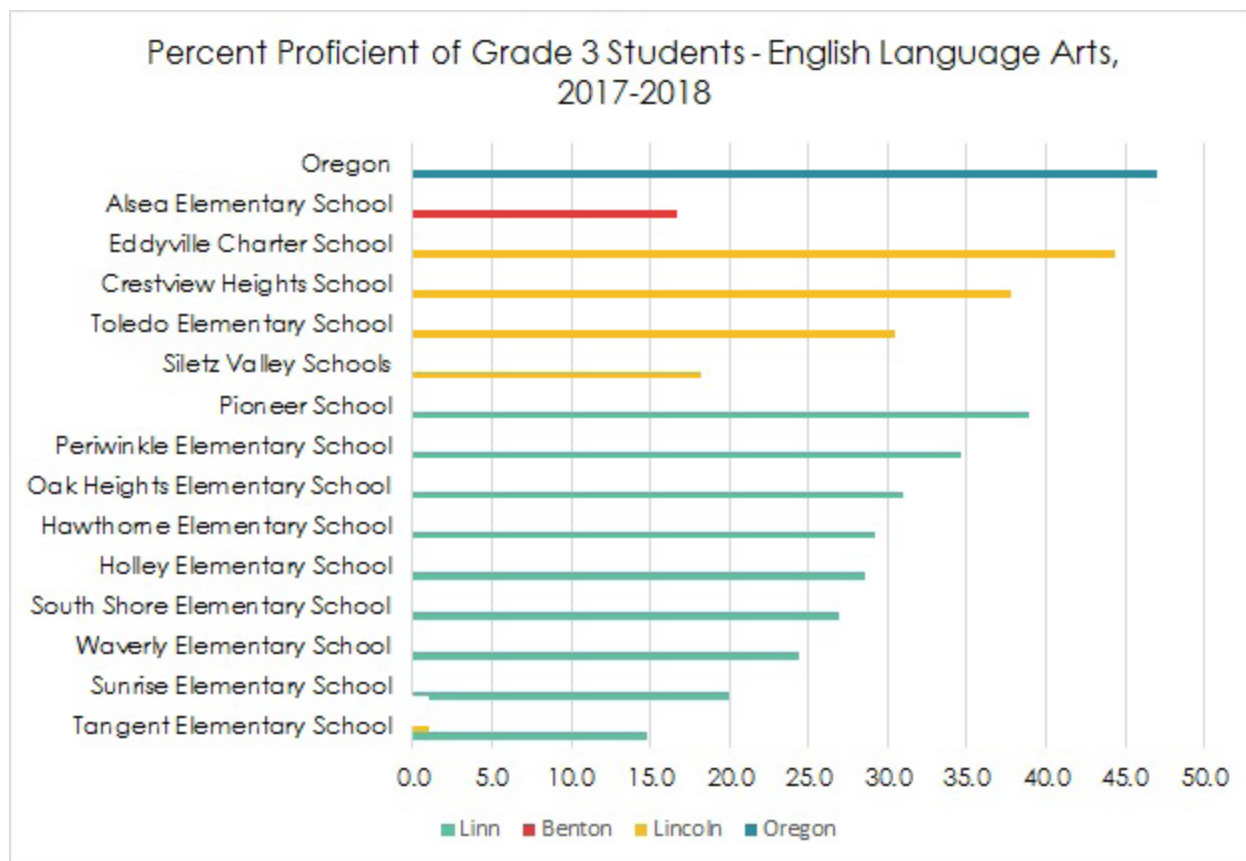


Figure 7. Grade 3 English Language Arts Proficiency, 2017-2018. Data from the 2017-2018 English Language Arts Assessment, Oregon Department of Education

- 47 percent of students met Grade 3 English Language Arts standards in Oregon.
- Tangent Elementary School catchment area has the lowest percentage of students who met the Grade 3 English Language Arts proficiency (14.8 percent) in our region. It fell 32.2 percent points below the state average.

Percentage of Students Eligible for Free or Reduced Price Lunch (2017-2018)

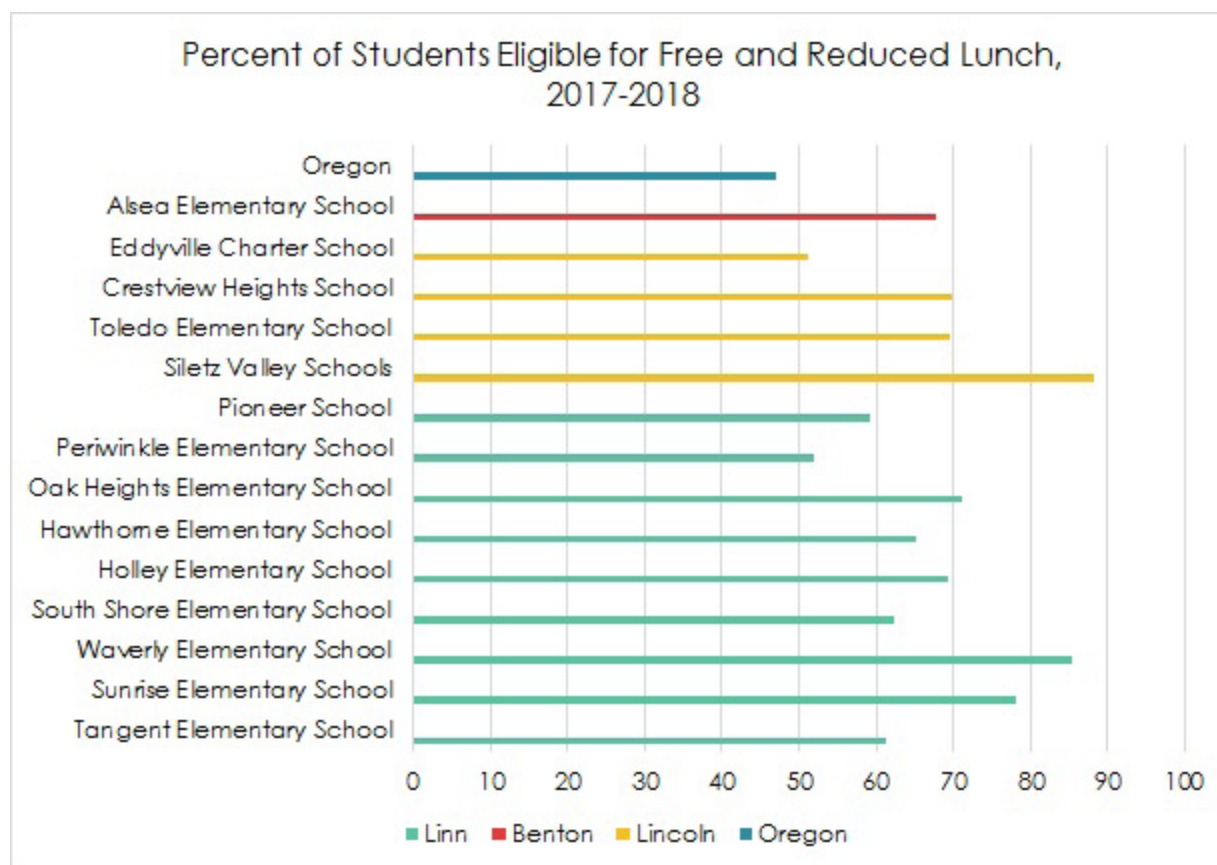


Figure 8. Students Eligible for Free or Reduced Lunch Price 2017-2018. Data from Students Eligible for Free/Reduced Lunch, 2017-2018, Oregon Department of Education.

- The percent of children receiving free or reduced price lunch for all school catchment areas in this graph are above the state average (47 percent) during 2017–2018. Higher percentages of students eligible for Free or Reduced Lunch Price indicates higher priority. This is the reverse of Kindergarten Assessment scores and Third Grade Language Arts proficiency where lower scores indicate higher priority.
- Siletz Valley School and Waverly Elementary School catchment areas had the highest percentage of students eligible for free or reduced lunch based on their family's household income.
- Due to the high percentage of children who qualify for free and reduced lunch in Lincoln County, the county serves breakfast and lunch to all students at no charge.

One Cohort: 2014–2015 Kindergarten Assessment - Approaches to Learning (KA-AL) and 2017–2018 Third Grade Reading (TGR) Scores

Brain science clearly indicates that the first five years of a child's life are the most significant for learning and brain development with long-term consequences for success in school and in life (*Raise Up Oregon*). With that in mind, we sought to better understand the relationship between KA-AL scores and TGR scores among the same cohort of children in Linn, Benton, and Lincoln counties. The LBL Hub hired an Oregon State College of Public Health and Human Sciences intern to perform an inferential and descriptive statistical analysis comparing the 2014–2015 KA-AL scores and 2017–2018 TGR scores for the same cohort of children in Linn, Benton, and Lincoln counties. The Epidemiologist for Benton County provided oversight and support.

Note: KA-AL scores are described above (see Oregon Kindergarten Assessment).

Third Grade Reading (TGR) Assessment – English Language Arts Proficiency/Literacy

Annually in 3rd grade, school districts in Oregon administer performance assessments in language arts proficiency to all students. The TGR assessment is aligned with the Oregon English Language Arts standards. For the TGR assessment, students demonstrate their knowledge and skills and then receive a Depth of Knowledge level that describes the kind of thinking required.

Depth of Knowledge	Score Threshold	Description
Level 1	NA	Requires students to receive or recite facts and use simple skill.
Level 2	2367	Requires procedural knowledge and skills; integrating and application of concepts.
Level 3	2432	Requires strategic thinking; non-routine problem-solving.
Level 4	2490	Requires extended thinking; developing hypothesis and performing complex analyses.

For more detailed information about the TGR Assessment, please visit the Oregon Department of Education website.

2014-2015 Kindergarten Cohort Demographics

Demographics for the children in the **Linn**, **Benton**, and **Lincoln** counties 2014–2015 KA cohort are indicated below:

Linn County: 1,258

Benton County: 511

Lincoln County: 303

Total: 2,072

Number of Children by Demographic Characteristic

Characteristic	Count
Female	1005
Male	1067
Limited English Proficient (LEP)	205
Students with Disabilities	148
Economically Disadvantaged (ED)	931
Asian	23
Black	16
Hispanic	343
AI/AN	32
Multiple	120
NH/PI	3
White	1535

Note: The small sample size for Asian, Black, American Indian/Alaskan Native and Native Hawaiian/Pacific Islander. Due to the small sample size, we used an inferential and descriptive statistical analysis.

Results

Detail charts of the results are available in Appendix E.

Key Findings

- Average TGR scores differed among the demographic groups:
 - Children with disabilities, children with limited English proficiency, and children who are economically disadvantaged scored lower than their counterparts.
 - Children in **Benton County** scored higher than in **Linn County**, who scored higher than in **Lincoln County**.
 - Black, Hispanic, American Indian/Alaskan Native children scored lower on average compared to White children.
 - White children scored lower on average compared to Asian children.
- There is a significant positive relationship between KA-AL scores and TGR scores. A higher KA-AL score is associated with a higher TGR score.
- The effect of KA-AL scores on TGR scores is not the same for all groups of children. The positive effect of KA-AL scores on TGR scores was smaller for children with limited English proficiency and children who are economically disadvantaged compared with other children. There were also differences across the counties.
- Disparities in scores widen between kindergarten and third grade. On average, KA-AL scores are about equal among all demographics of students. However, there are significant gaps in TGR scores among these same students. It is beyond the scope of this report to speculate about which factors influence this growing disparity. However, there could be influences that students experience between kindergarten and third grade or influences from early childhood that have a latent affect on TGR.

High School Graduation Rates by School District for 2017-2018

According to the National Center for Education Statistics (2019), Oregon's graduation rate was 48th of 50 states in 2015-2016. Research indicates that children who successfully read at or above third grade reading levels are more likely to graduate from high school within five years and then continue on to college (Lesnick et al., 2010). The previous section demonstrated how kindergarten readiness, specifically Approaches to Learning scores, are directly associated with Third Grade Reading scores.

Therefore, high school graduation rates can also help identify priority school catchment areas in Linn, Benton, and Lincoln County to implement Early Learning Hub strategies (Refer to Determining High Priority Areas).

The following figure presents high school graduation rates for each school district in Linn, Benton, and Lincoln counties. Five-year cohort graduation rates are used instead of four-year cohort graduation rates as they include students who required an additional year to graduate.

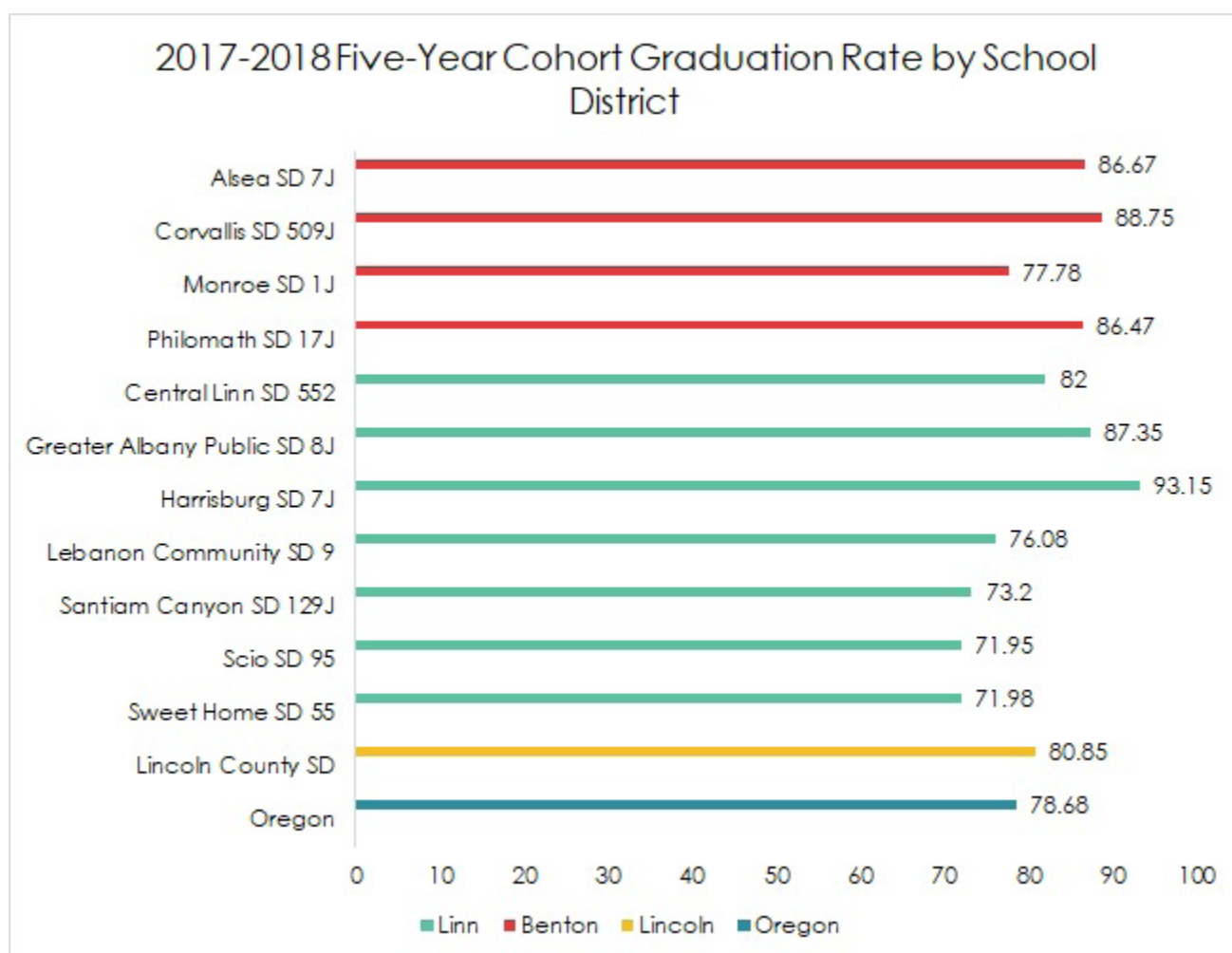


Figure 9. Five-year Cohort Graduation Rate by School District 2017-2018. Data from Graduation Reports, School Year 2017-2018, Cohort Graduation Rate 2017-2018 Media File, Oregon Department of Education.

Three school districts with the highest five-year cohort graduation rates in our region in 2017–2018:

- Harrisburg School District (93.15) - **Linn County**
- Corvallis School District (88.75) - **Benton County**
- Greater Albany Public School District (87.35) - **Linn County**

Three school districts with the lowest five-year cohort graduation rates in our region in 2017–2018:

- Scio School District (71.95) - **Linn County**
- Sweet Home School District (71.98) - **Linn County**
- Santiam Canyon School District (73.2) - **Linn County**

Preschool Participation

During early childhood, high-quality child care and preschool experiences have a positive impact on all children, preparing them for success in school, for high school graduation, and improved lifelong outcomes (*Raise Up Oregon*, 2019). The following preschool enrollment data indicates where children in our region are accessing preschool and suggests opportunity gaps useful for preschool expansion planning.

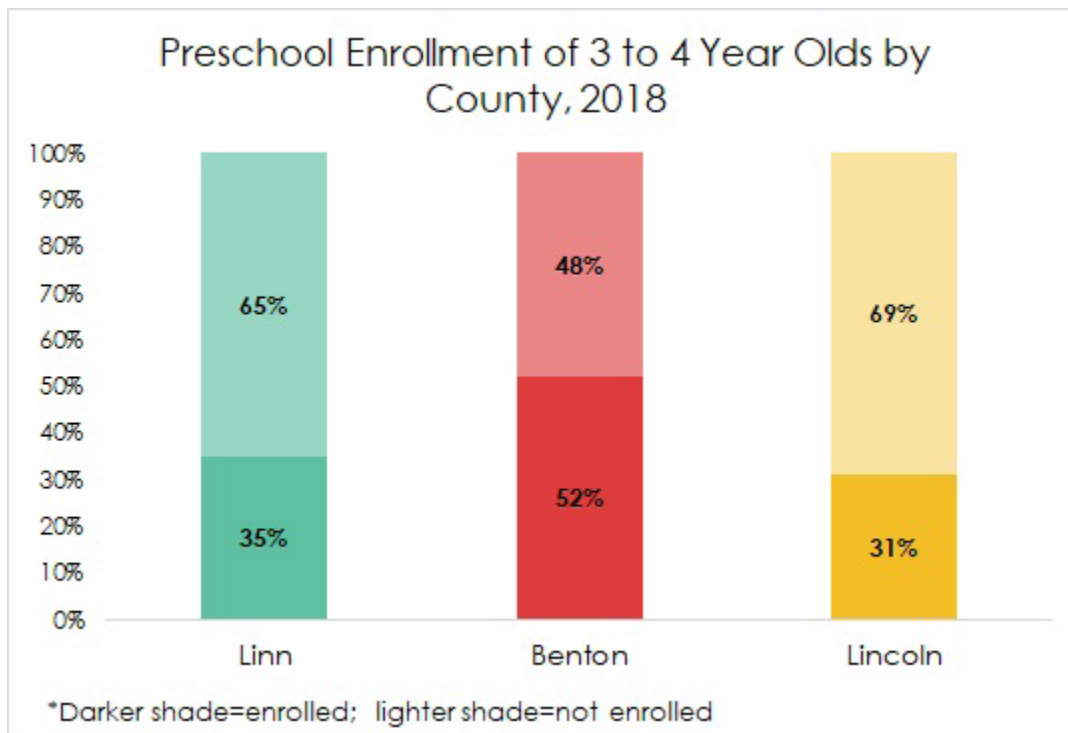


Figure 10. Preschool Enrollment. Data from Early Care and Education Profiles: 2018 Oregon Child Care Research Partnership, Oregon State University, Pratt, M. (2018).

Note: the **number** of 3-4 year old children enrolled in preschool is not provided with this data.

- **Benton County** has the highest percentage (52) of 3-4 year olds enrolled in preschool in our region.
- **Linn** and **Lincoln** counties have similar percentages of 3-4 year olds enrolled in preschool (35 and 31).

Early Childhood Care

In our region, a majority of young children live in families where all available parents are employed. According to the American Community Survey (2016), nearly two-thirds of children under age six in **Linn** (62.3 percent) and **Lincoln** (60.9 percent) counties have both parents employed or a single parent employed. In **Benton County**, over half (52.6 percent) of the children under age six have both parents employed or a single employed parent. As a result, many families turn to their family, friends, neighbors, and state regulated programs for child care during their working hours. The following section presents data regarding the availability, cost, and quality of early care and education in our region.

Child Care Availability in Linn, Benton, and Lincoln Counties

According to the Oregon Early Learning Glossary from Oregon State University, Oregon regulates three types of child care:

- “*Certified Child Care Center* rules regulate programs that serve children in a building constructed as other than a single family home for more than four hours per day.”
- “*Certified Family Child Care Home* rules regulate home-based providers who care for no more than 16 children.”
- “*Registered Family Care Home* rules regulate home-based providers who care for a maximum of 10 children under 13 years of age, including the provider’s own children of which only 6 can be preschool age or younger (Oregon Education Investment Board, 2016).

“Availability of child care plays a critical role in the lives of Oregon’s families with young children, including if, where and when parents work,” according to Megan Pratt, Oregon Child Care Research Partnership. The term “Child Care Desert” has been coined to illustrate the lack of child care slots across the country. A child care desert is defined as a geographic region with more than three times as many children as licensed slots (Malik et al., 2018). A recent study conducted by Oregon State University identified areas in Oregon that have inadequate child care supply for different age groups (Pratt et al., 2019). Every county in Oregon is considered a child care desert for families living with infants and toddlers. Major findings from the study that pertain to our region include the following:

- **Linn**, **Benton**, and **Lincoln** counties have very low percentages of children (0-2 year olds) with access to a regulated child care slot.
- **Benton County** has the highest percentage (42) in the region of 3-5 year olds with access to a regulated child care slot.
- **Benton County** is one of nine counties that is not considered a child care desert for 3-5 year olds.
- Access to regulated child care is limited for all children in the EL Hub region with the greatest need among 0-2 year olds child care slots.

Please refer to Appendix D for the number of slots in Child Care Centers and Family Child Care Homes in each county in 2017.

Percentage of Children with Access to a Regulated Slot in 2018			
County	# 0-2 year olds	# 3-5 year olds	# 0-5 year olds
Linn	6%	17%	12%
Benton	1%	44%	31%
Lincoln	4%	27%	15%

Table 1. Percentage of Children With Access to a Regulated Child Care Slot in 2018. Data from Oregon's Child Care Deserts: Mapping Supply by Age Group, Metropolitan Status, and Percentage of Publicly Funded Slots, Oregon State University.

*Regulated child care slots, including Certified Centers, Certified Family and Registered Family Providers.

- Certified Center: Includes licensed center-based child care
- Certified Family: Home-based programs that can care for up to 16 children
- Registered Family: Home-based programs caring for up to 10 children

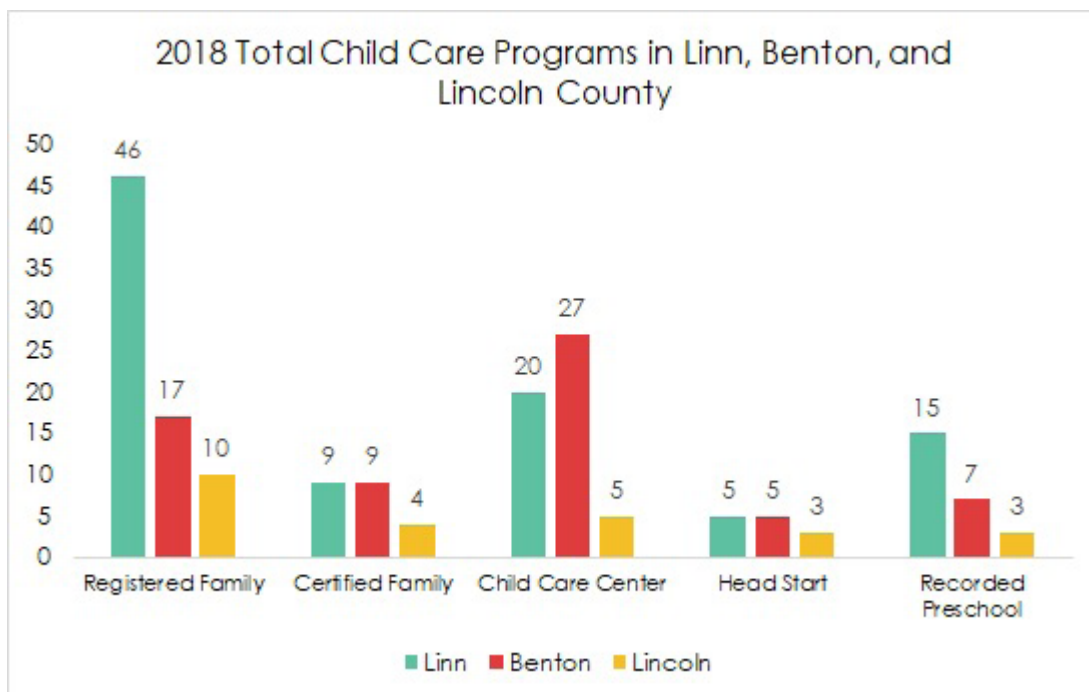


Figure 11. 2018 Total Child Care Programs in Linn, Benton, and Lincoln County. Registered Family, Certified Family, Child Care Center and Head Start Data from the Research Institute at Western Oregon University for Reporting Period April 1 2018 to June 30 2018, Recorded Preschool pulled from Oregon Department of Education Child Care Regulatory Information System - Partner Version (CCRIS-P) by Family Connections, 10/8/2018.

Note: Tribal Head Start is not included as it is not required to be licensed.

Many families access unregulated care. Multiple factors influence a family's use of unregulated care, which include preference and expanded or flexible hours, and the cost and availability of regulated care. Child care exempt from state monitoring includes center-based programs that:

- Operate fewer than four hours per day and serve children ≥ 3 years.
- Home-based care for three or fewer children in addition to one's own children.

In Oregon, many families rely on their family, friends, and neighbors to supply child care for their children. Family, friend, and neighbor care in Oregon represents:

- 38 percent of the care of children (<3 years old)
- 16 percent of care of children (3 & 4 years old)
- 31 percent of the care of children (5-8 years old)
- 30 percent of the care of children (9-12 years old) (Weber & Hartman, 2015)

Child Care Affordability in Linn, Benton & Lincoln Counties

"In Oregon, lack of affordability often prevents families from accessing quality care and education" (Oregon Child Care Partnership, 2018). The median annual cost for toddler care in a child care center in **Benton County** is \$14,400, \$9,600 in **Linn County** and \$7,380 in **Lincoln County**. Detailed information on the cost of Oregon Child Care can be found in the 2018 Oregon Child Care Market Rate Price Study.

Oregon offers supports, such as the Oregon Child Care subsidy, for certain special populations who meet eligibility requirements. Employment-Related Day Care (ERDC) accounts for the majority of the subsidies. Statewide, 39.6 percent of children received care in unlicensed facilities (Early Care and Education Profiles: 2018 Oregon Child Care Research Partnership, Oregon State University).

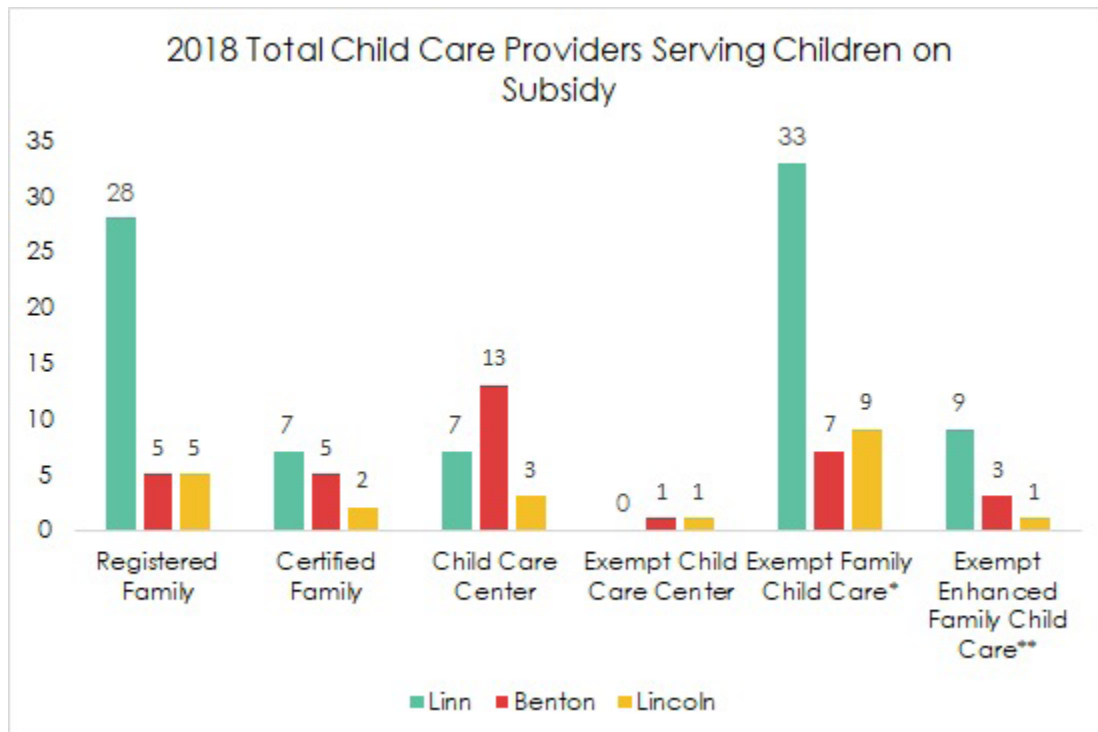


Figure 12. Number of child care providers serving children on subsidy in August 2018. Data from Family Connections, Linn-Benton Community College. *Thirty-nine of these providers are relatives **Completed trainings in CPR/First Aid, Recognizing and Reporting Child Abuse and Neglect, and Food Handler Permit

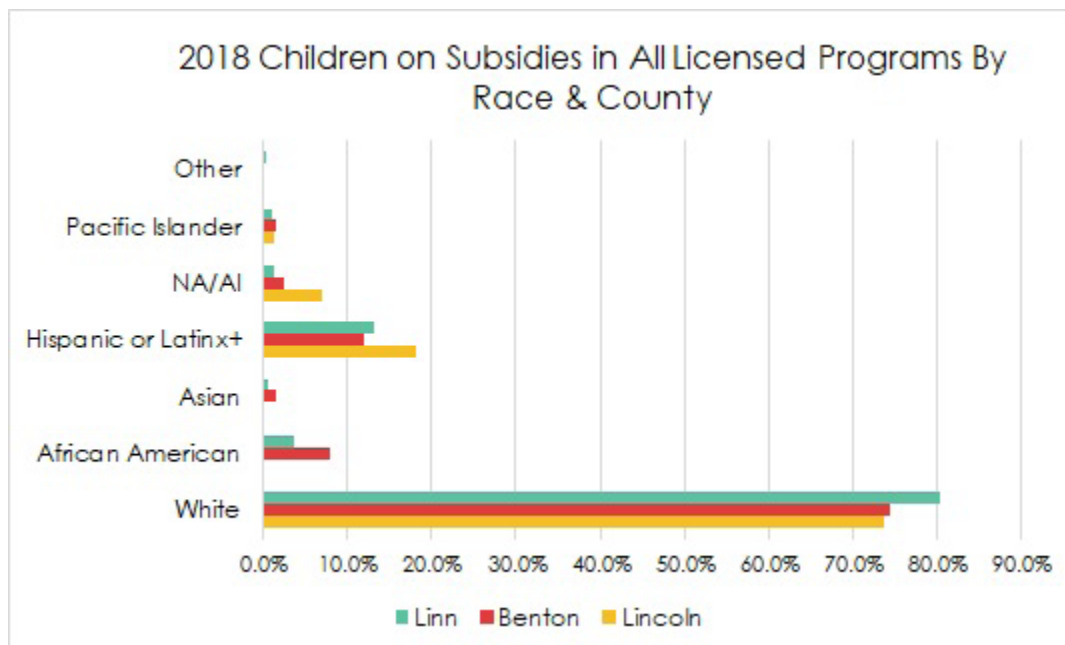


Figure 13. Children on Subsidies in All Licensed Programs by Race and County in 2018. Data from the Research Institute at Western Oregon University.

In reference to Figure 12 and Figure 13:

- **Lincoln County** has the highest percentage (18.1) of Hispanic or Latinx children on subsidies in all licensed child care programs.
- **Linn County** has the highest percentage of White children (80.2) on subsidies in all licensed child care programs.
- Compared to **Linn** and **Benton** Counties, **Lincoln County** has the highest percentage of NA/AI children on subsidies in all licensed child care programs.

Child Care Quality in Linn, Benton, and Lincoln Counties

Spark, formerly known as Oregon's Quality Rating and Improvement System (QRIS), is a statewide program from Oregon's Early Learning Division. It grants a star-rating to child care programs that meet high quality standards.

Oregon's voluntary quality-rating and improvement system began in 2013. The Spark framework encourages licensed programs to meet standards in the following areas: Environments, Learning and Development, Inclusion of Children, Families and Culture, Positive Relationships, Personnel Qualification, and Children's Safety and Program Stability. Programs begin by attending a training and making a Commitment to Quality (C2Q). Star-ratings (3-Star, 4-Star and 5-Star) are awarded when programs document and meet high quality standards. The types of child care providers eligible to participate include Certified Centers, Certified Family, Registered Family, and Head Start programs.

Focused Networks have been a primary strategy for supporting caregivers participating in the Spark system. Linn and Benton counties currently have two Focused Child Care Networks (FCCN) to assist up to 12 home-based and licensed early education programs with their portfolio to achieve a star-rating. Programs recruited for these Networks include those who serve children receiving child care subsidies, care for infants and toddlers, or have children with special needs in care. Previous LBL Hub funded Focused Networks include a network targeting home-based providers in rural communities in all three counties and a Network of Spanish speaking home-based providers.

Provider cohorts, which bring together providers to focus on a specific topic or issues, is another strategy currently being used in our Hub region to enhance quality. A cohort of home-based providers in **Lincoln County** has been meeting regularly since fall of 2019 with the focus on supporting children with challenging behaviors. Providers of infant-toddler care were recruited to enroll spring term 2019 in the Linn-Benton Community College 3 credit course, Ed 163: Infant and Toddler Development and Group Care. As a part of the cohort, they are interacting with other providers, receiving support with tuition and books, and receiving technical assistance to support application of course concepts into practice.

Spark Participation

The Research Institute at Western Oregon University collects data and information about Oregon's Quality Rating and Improvement System for child care providers. The following figures portray the number of child care providers for each category of child care quality. Licensed care is considered a baseline. As of January 2019, 38 percent of licensed childhood programs in Oregon were engaged in the quality improvement program. In our region, 43 percent of providers are participating in Spark. Participation across program types is 38 percent in **Linn County**, 42 percent in **Benton County**, and 64 percent in **Lincoln County**. This data is updated monthly.

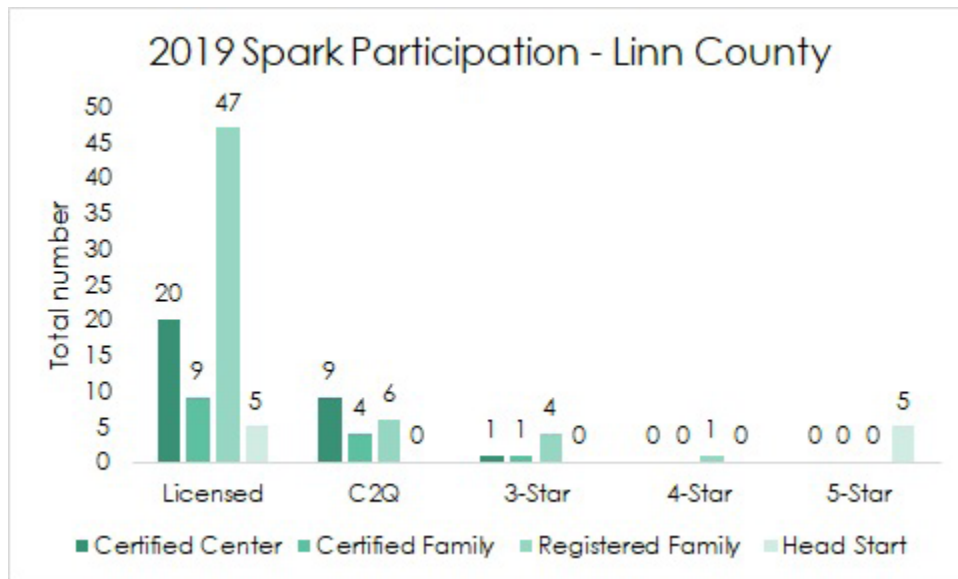


Figure 14. Spark Participation in Linn County, 2019. Data from Oregon's QRIS Data Facts and County Data Facts for January 2019, The Research Institute at Western Oregon University.

- In **Linn County**, registered family providers make up the greatest number of licensed programs that participate in Spark.

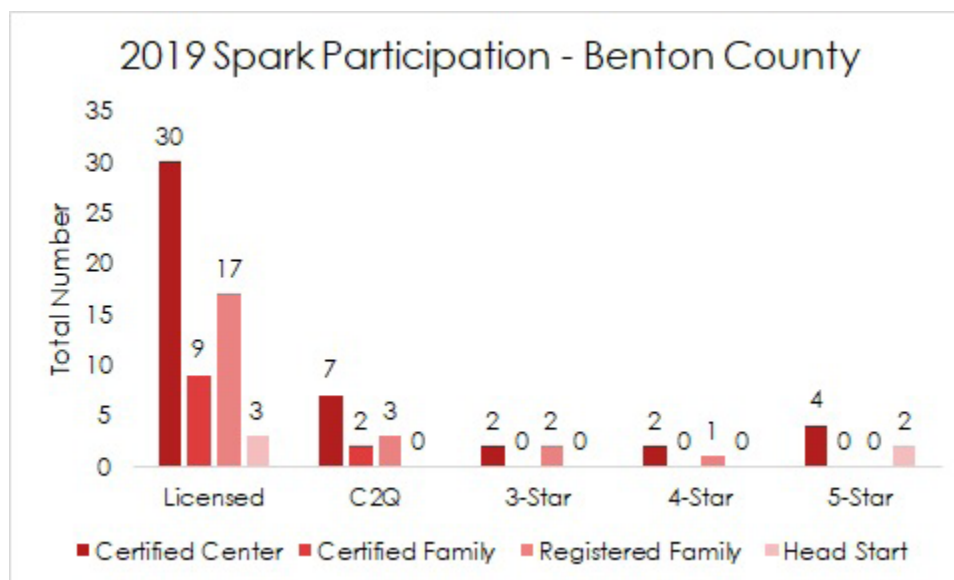


Figure 15. Spark Participation in Benton County, 2019. Data from Oregon's QRIS Data Facts and County Data Facts for January 2019, The Research Institute at Western Oregon University.

- In **Benton County**, certified centers make up the greatest number of licensed programs that participate in Spark. Registered family providers make up the second greatest number of licensed programs that participate in Spark.

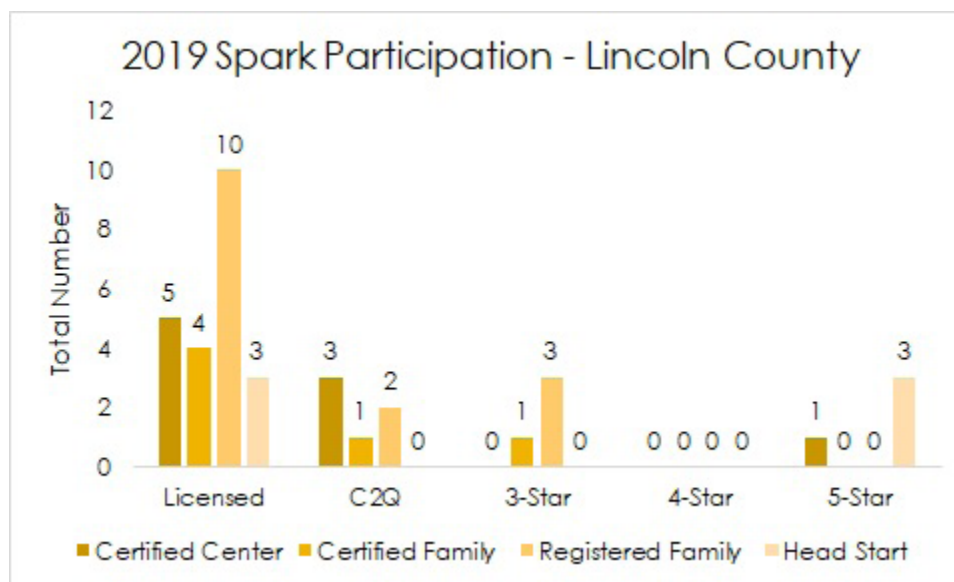


Figure 16. Spark Participation in Lincoln County, 2019. Data from Oregon's QRIS Data Facts and County Data Facts for January 2019, The Research Institute at Western Oregon University.

- In **Lincoln County**, registered family providers make up the greatest number of licensed programs that participate in Spark.

Appendix C

How does the EL Hub compare to the state?

Approaches to Learning (total)- Average Rating (1-5)					
Area	2014-2015 N = 2,451	2015-2016 N = 2,375	2016-2017 N = 2,500	2017-2018 N = 2,455	2018-2019 N = 2,436
EL Hub	3.7	3.6	3.6	3.6	3.5
Oregon	3.7	3.6	3.6	3.6	3.6
Approaches to Learning (Self-Regulation) - Average Rating (1-5)					
Area	2014-2015 N = 2,451	2015-2016 N = 2,375	2016-2017 N = 2,500	2017-2018 N = 2,455	2018-2019 N = 2,436
EL Hub	3.6	3.5	3.5	3.5	3.4
Oregon	3.6	3.5	3.5	3.5	3.5
Approaches to Learning (Interpersonal Skills) - Average Rating (1-5)					
Area	2014-2015 N = 2,451	2015-2016 N = 2,375	2016-2017 N = 2,500	2017-2018 N = 2,455	2018-2019 N = 2,436
EL Hub	3.9	3.8	3.7	3.7	3.7
Oregon	3.9	3.8	3.8	3.8	3.7
Early Mathematics (Numbers & Operations) - Average Number Correct (0-26)					
Area	2014-2015 N = 2,313	2015-2016 N = 2,359	2016-2017 N = 2,477	2017-2018 N = 2,455	2018-2019 N = 2,394
EL Hub	8	8.5	8.7	11.4	10.9
Oregon	8	8.5	8.5	11.3	11.1

Early Literacy (English Letter Names) - Average Number Correct (0-26)						
Area	Uppercase English Letter Names 2016-2017 N = 2,444	Lowercase English Letter Names 2016-2017 N = 2,437	Uppercase English Letter Names 2017-2018 N = 2,429	Lowercase English Letter Names 2017-2018 N = 2,422	Uppercase English Letter Names 2018-2019 N = 2,394	Lowercase English Letter Names 2018-2019 N = 2,394
EL Hub	14.6	12.2	14.4	12.0	13.5	11.1
Oregon	14.8	12.5	14.5	14.5	14.3	11.7
Early Literacy (English Letter Sounds) - Average Number Correct (0-26)						
Area	2016-2017 N = 2,413		2017-2018 N = 2,394		2018-2019 N = 2,393	
EL Hub	8.6		7.8		6.8	
Oregon	8.9		8.2		7.7	

Which demographic groups of children are below the EL Hub average?

Approaches to Learning (Total) - Average Rating (1-5)										
Group	2014-2015		2015-2016		2016-2017		2017-2018		2018-2019	
	N	Average Rating	N	Average Rating	N	Average Rating	N	Average Rating	N	Average Rating
Economic Disadvantage	1,190	3.6	1,399	3.5	1,501	3.5	1,450	3.5	*	*
Limited English Proficiency	249	3.8	253	3.6	228	3.5	209	3.5	*	*
Males	1,295	3.5	1,247	3.4	1,266	3.4	1,264	3.4	1,269	3.4
Females	1,156	3.9	1,128	3.8	1,234	3.7	1,191	3.7	1,167	3.7
Students with Disabilities	244	3.1	241	3.0	246	3.0	298	3.0	*	*
Native American	42	3.3	42	3.6	36	3.6	30	3.3	29	3.2
Hispanic	376	3.8	360	3.6	358	3.5	370	3.6	380	3.6

Approaches to Learning (Self Regulation) - Average Rating (1-5)

Group	2014-2015		2015-2016		2016-2017		2017-2018		2018-2019	
	N	Average Rating	N	Average Rating	N	Average Rating	N	Average Rating	N	Average Rating
Economic Disadvantage	1,190	3.5	1,399	3.4	1,501	3.4	1,450	3.5	*	*
Limited English Proficiency	249	3.6	253	3.4	228	3.4	209	3.4	*	*
Males	1,295	3.5	1,247	3.3	1,226	3.3	1,227	3.3	1,269	3.3
Females	1,156	3.8	1,128	3.7	1,234	3.7	1,191	3.7	1,167	3.6
Students with Disabilities	244	3.0	241	2.9	246	2.9	275	2.9	*	*
Native American	42	3.2	42	3.2	36	3.4	30	3.2	29	3.2
Hispanic	376	3.6	360	3.6	358	3.4	370	3.5	380	3.6

Approaches to Learning (Interpersonal) - Average Rating (1-5)

Group	2014-2015		2015-2016		2016-2017		2017-2018		2018-2019	
	N	Average Rating	N	Average Rating	N	Average Rating	N	Average Rating	N	Average Rating
Economic Disadvantage	1,190	3.8	1,399	3.7	1501	3.6	1,450	3.7	*	*
Limited English Proficiency	249	4.0	253	3.9	228	3.7	209	3.8	*	*
Males	1,295	3.7	1,247	3.6	1,266	3.6	1,264	3.6	1,269	3.5
Females	1,156	4.1	1,128	4.0	1,234	3.8	1,191	3.9	1,167	3.9
Students with Disabilities	244	3.4	241	3.3	246	3.3	298	3.2	*	*
Native American	42	3.5	42	3.9	36	4.0	30	3.6	29	3.3
Hispanic	376	4.0	360	3.9	358	3.7	370	3.8	380	3.8

Early Mathematics (Numbers & Operations) - Average Number Correct (0-16)

Group	2014-2015		2015-2016		2016-2017		2017-2018		2018-2019	
	N	Average Number Correct	N	Average Number Correct	N	Average Number Correct	N	Average Number Correct	N	Average Number Correct
Economic Disadvantage	1,184	7.5	1,378	8.0	1,472	8.1	1,427	10.7	*	*
Limited English Proficiency	248	6.7	243	7.2	228	7.0	205	9.4	*	*
Males	1,282	8.0	1,243	8.6	1,250	8.7	1,247	11.3	1,246	10.7
Females	1,155	8.0	1,116	8.4	1,227	8.6	1,186	11.5	1,148	11.1
Students with Disabilities	242	6.6	229	7.1	228	7.0	286	9.0	*	*
Native American	40	7.0	43	7.8	36	9.0	31	10.2	29	9.5
Hispanic	376	7.0	344	7.4	355	7.4	365	10.2	376	9.9

Early Literacy (English Letter Names) - Average Number Correct (0-26)

Group	2016-2017		2016-2017		2017-2018		2017-2018		2018-2019		2018-2019	
	Uppercase English Letter Names		Lowercase English Letter Names		Uppercase English Letter Names		Lowercase English Letter Names		Uppercase English Letter Names		Lowercase English Letter Names	
	N	Average Number Correct	N	Average Number Correct	N	Average Number Correct	N	Average Number Correct	N	Average Number Correct	N	Average Number Correct
Economic Disadvantage	1,458	12.2	1,454	10.0	1,427	12.2	1,422	9.9	*	*	*	*
Limited English Proficiency	219	6.5	218	5.2	205	7.6	205	6.4	*	*	*	*
Males	1,235	14.4	1,232	11.9	1,246	14.3	1,244	11.9	1,246	12.7	1,246	10.4
Females	1,235	14.4	1,232	11.9	1,183	14.5	1,178	12.1	1,148	14.4	1,148	11.8
Students with Disabilities	227	10.8	227	8.5	283	11.0	280	8.9	*	*	*	*
Native American	35	11.5	35	8.7	31	15.3	31	11.6	28	10.1	28	8.1

Hispanic	347	9.0	345	7.5	365	9.8	364	8.1	374	9.8	374	8.3
Early Literacy (English Letter Sounds) - Average Number Correct (0-26)												
Group	2016-2017		2017-2018		2018-2019							
	N	Average Number Correct	N	Average Number Correct	N	Average Number Correct						
Economic Disadvantage	1,434	6.5	1,398	5.8	*	*						
Limited English Proficiency	217	2.8	204	3.2	*	*						
Males	1,219	8.3	1,227	7.5	1,245	6.1						
Females	1,194	8.9	1,167	8.1	1,148	7.6						
Students with Disabilities	223	4.8	275	4.8	*	*						
Native American	35	4.8	31	6.6	28	3.1						
Hispanic	343	4.6	364	4.5	374	5.0						

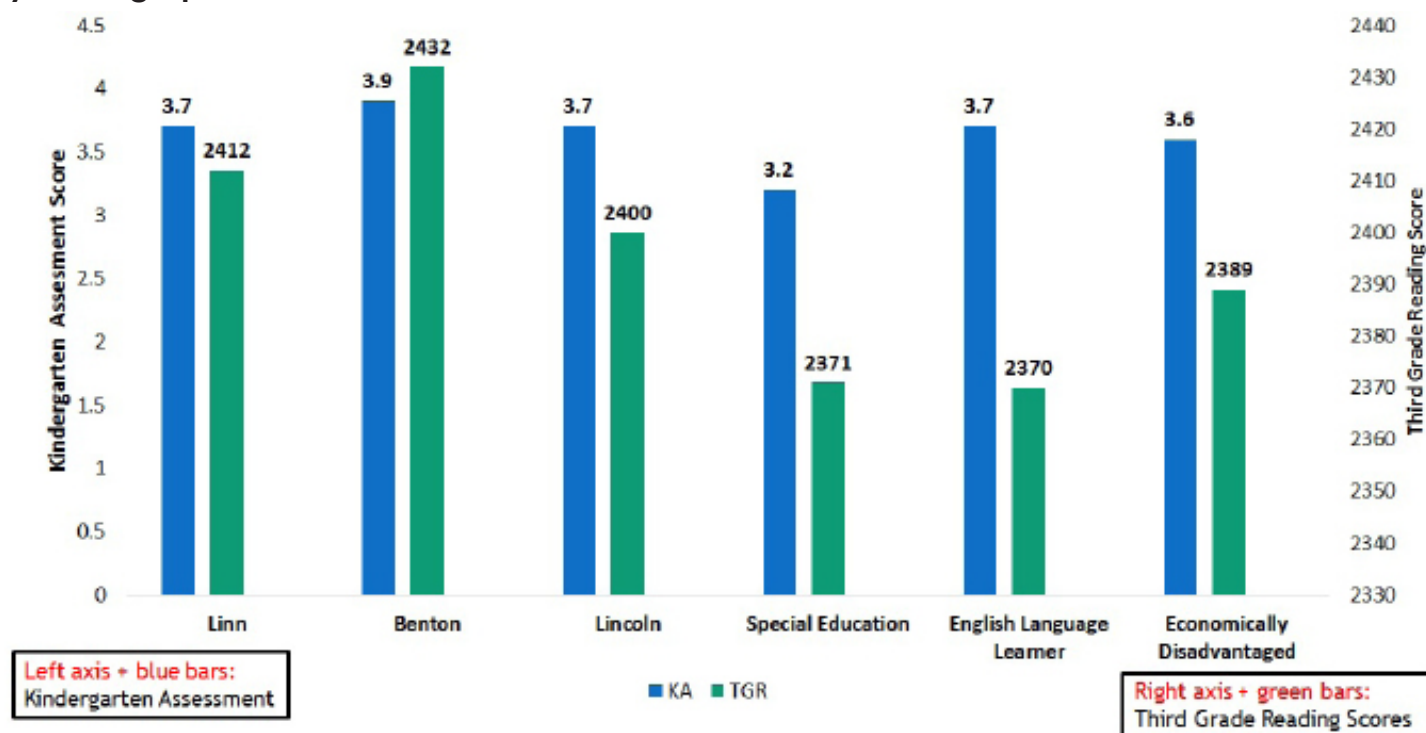
Appendix D

Estimated Supply of Child Care Slots, January 2018		
Area	Child Care Centers	Family Child Care Homes
Linn County	1,720	583
Benton County	2,331	322
Lincoln County	803	147
Total EL Hub	4,854	1,052

Pratt, M. (2018). Early Care and Education Profiles: 2018 Oregon Child Care Research Partnership, Oregon State University.

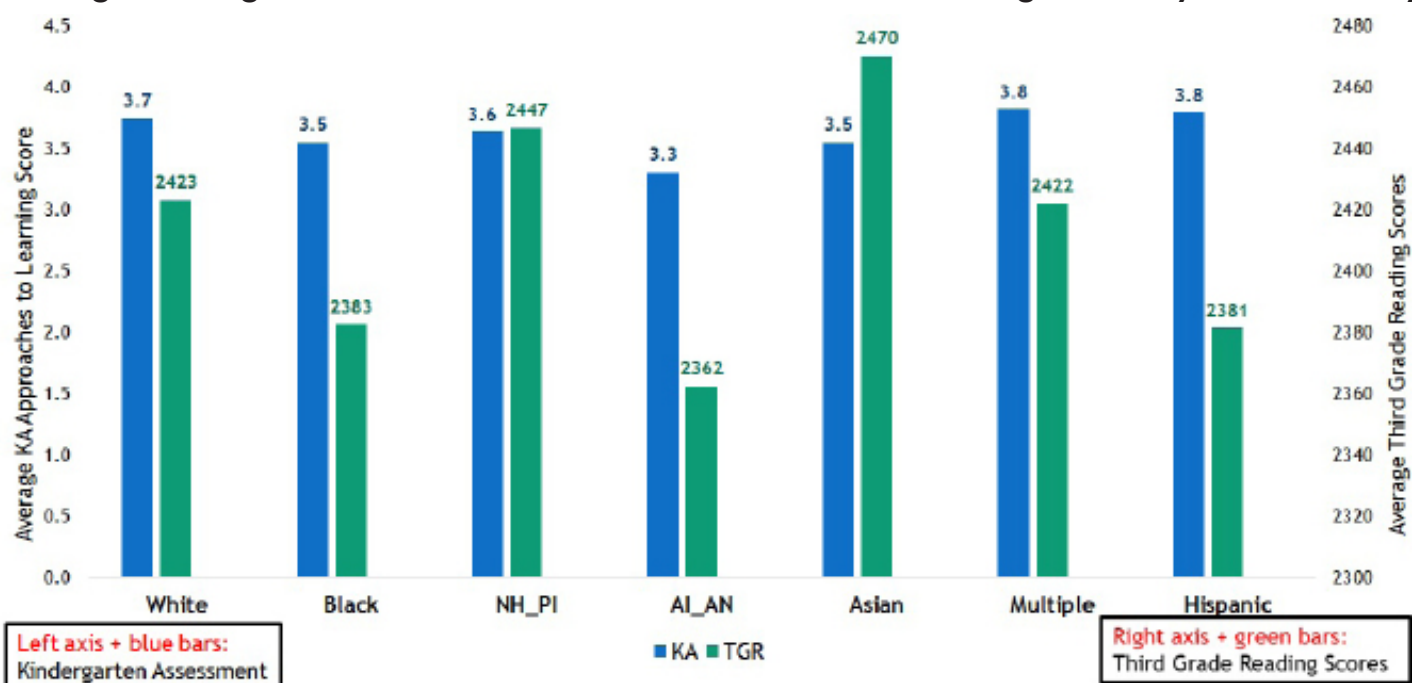
Appendix E

Average Kindergarten Assessment scores and Third Grade Reading scores by demographic characteristic



Differences in scores by gender are not presented because our statistical analysis revealed no difference in scores between males and females.

Average Kindergarten Assessment scores and Third Grade Reading scores by race/ethnicity

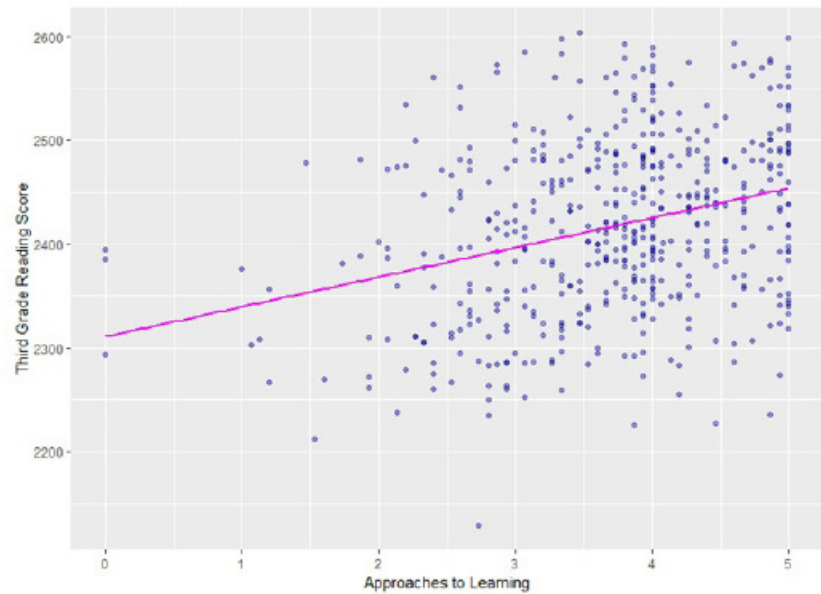


Relationship between KA scores and TGR scores

Simple Model (i.e. no demographics included in model)

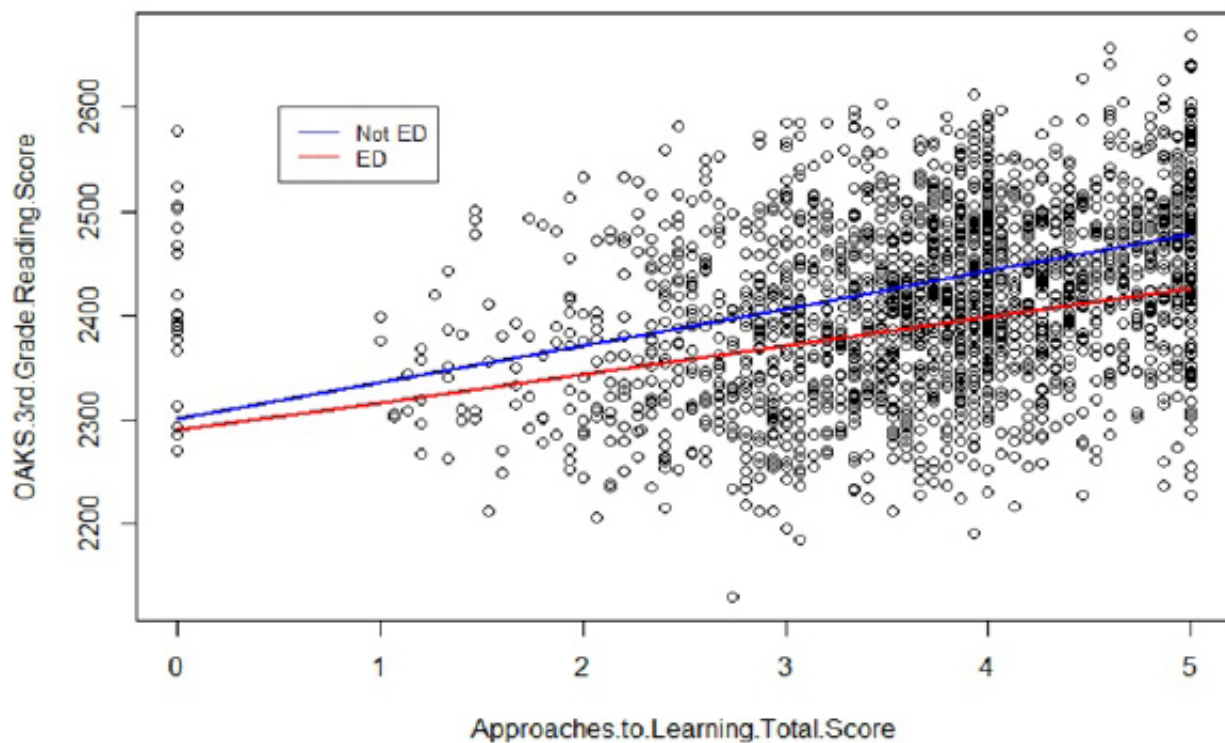
$$TGR\ Score = \beta_0 + \beta_1 KA\ Score$$

Random sample
of 500 students →

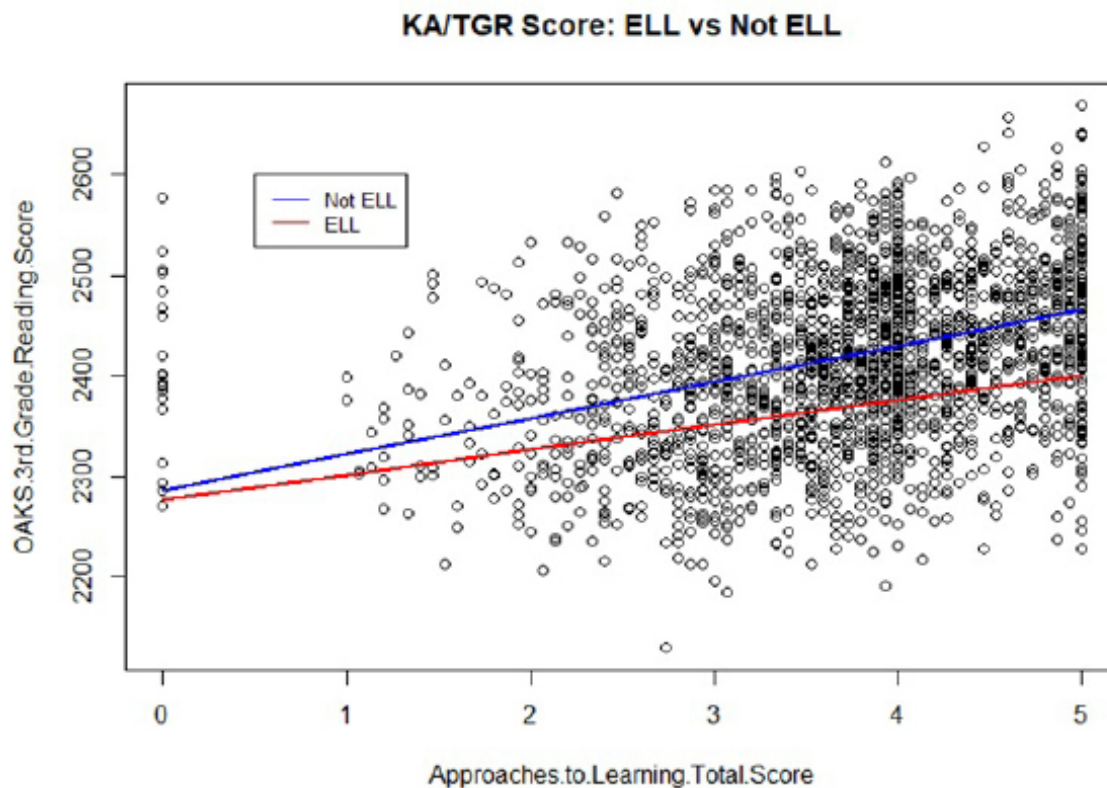


KA and TGR scores – differences in slopes KA/TGR score: ED vs not ED

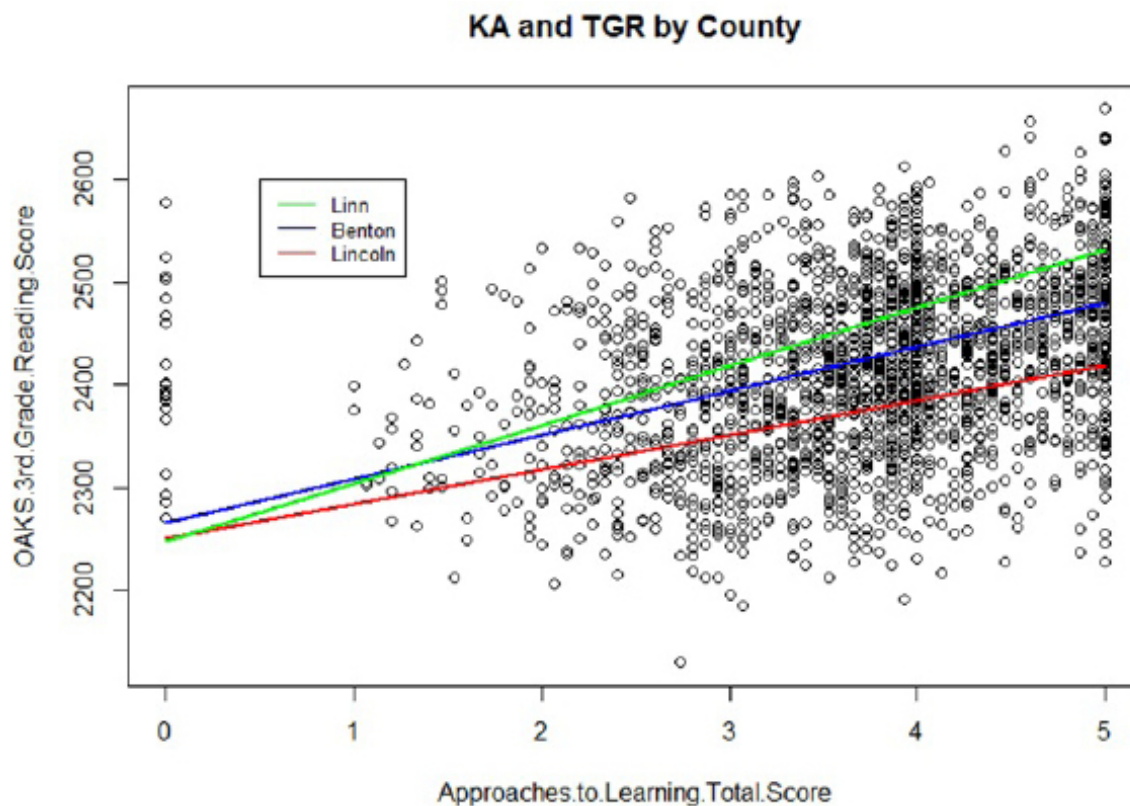
KA/TGR Score: ED vs Not ED



KA and TGR scores – differences in slopes KA/TGR score: ELL vs not ELL



Average Kindergarten Assessment scores and Third Grade Reading scores by race/ethnicity



Stable and Attached Families

This section targets the experiences that may have the greatest impact on the growth of children and their families in our communities, which include maternal and infant health and child health.

Maternal and Infant Health

This section includes data about factors that increase the risk of poor pregnancy outcomes in the LBL Hub region. The following topics will be covered as areas of emphasis to understand maternal and infant health in our region:

1. Births
2. Timeliness of Prenatal Care
3. Prenatal Care
4. Teen Pregnancy
5. Mother's Education Level
6. Unmarried Mothers
7. Prenatal Substance Use
8. Breastfeeding

Births

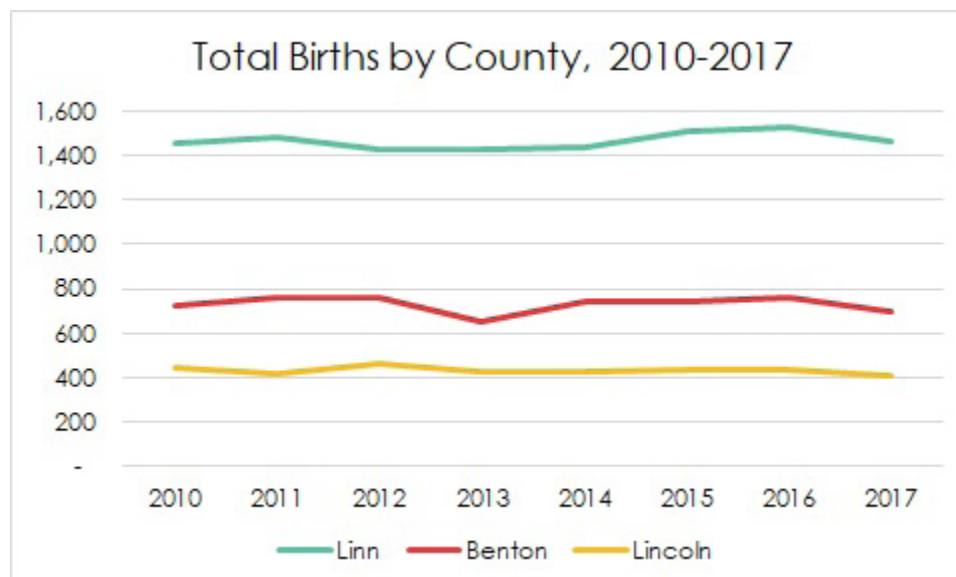


Figure 18. Total births by county, 2010-2017. Data from Oregon Resident Births by County and ZIP Code, 2010-2017, Oregon Health Authority.

- The number of births per year in all three counties has varied very little during the seven years from 2010 to 2017.
- **Linn County** consistently had more births than **Benton** and **Lincoln** counties from 2010 to 2017.

- The number of births in **Linn County** (1,464) was over two times the number in **Benton County** (696) and over three times the number in **Lincoln County** (404) in 2017.

The births illustrated below show the number infants born to mothers by the mother's county of residence and their selected racial/ethnic groups.

Births in Linn County by Race/Ethnicity

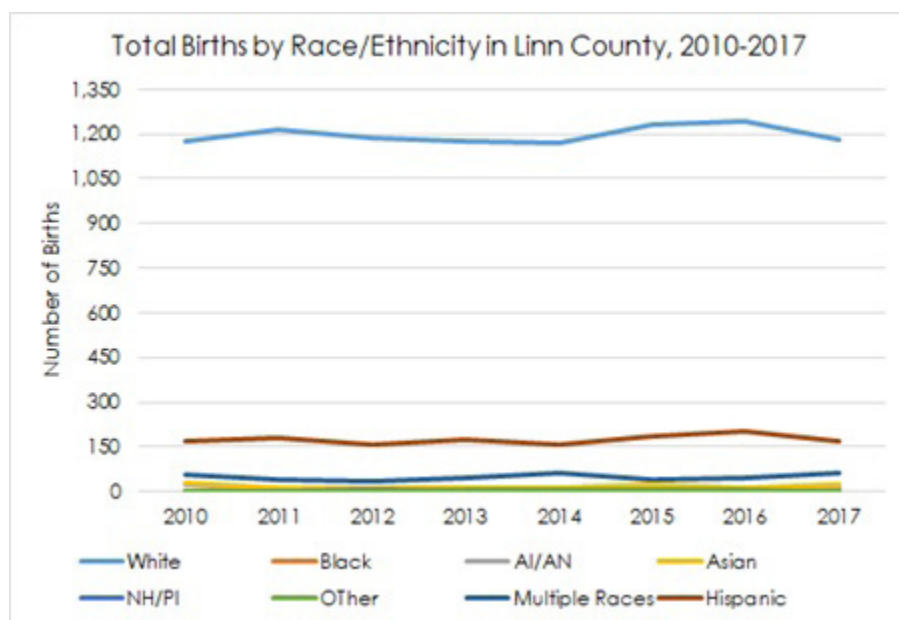


Figure 19. Total births by race, ethnicity, and county, 2010-2017. Data from Vital Statistics Annual Report Volume 1 2010-2017, Oregon Health Authority.

Births in Benton County by Race/Ethnicity

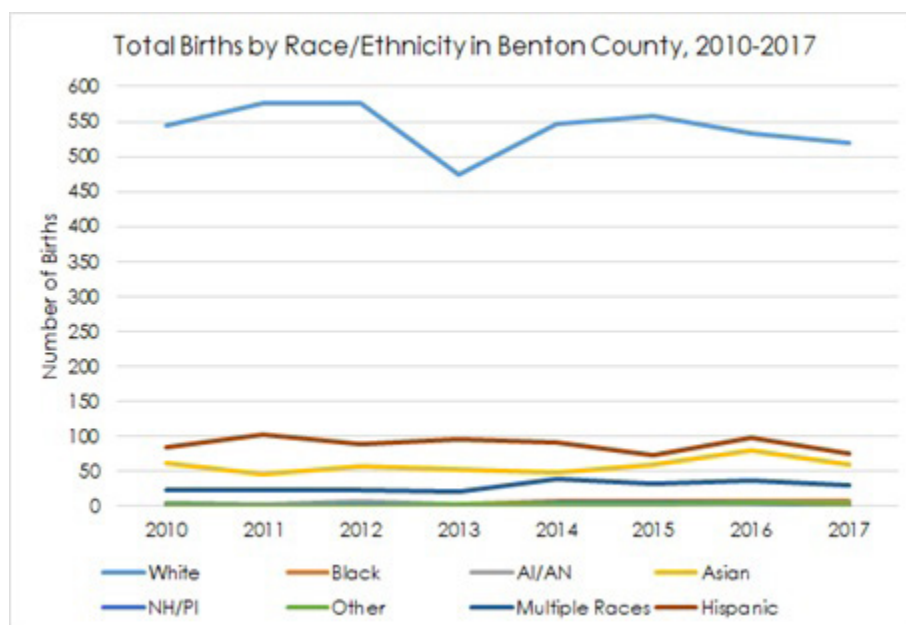


Figure 20. Total births by race, ethnicity, and county, 2010-2017. Data from Vital Statistics Annual Report Volume 1 2010-2017, Oregon Health Authority.

Births in Lincoln County by Race/Ethnicity

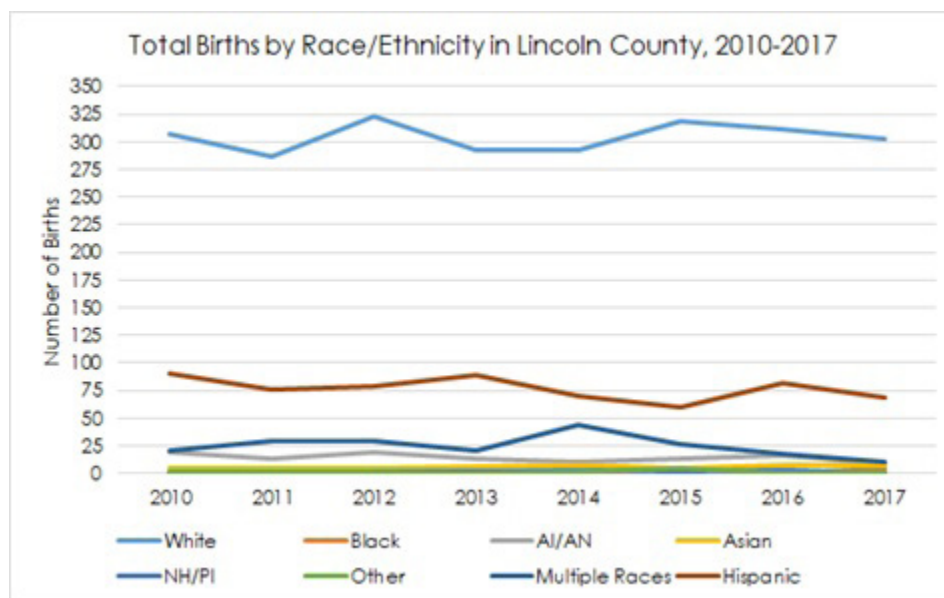


Figure 20. Total births by race, ethnicity, and county, 2010-2017. Data from Vital Statistics Annual Report Volume 1 2010-2017, Oregon Health Authority.

- Infants born to mothers who are White were the largest demographic group born in our region.
- Infants born to mothers who are Hispanic were the second largest demographic group born in our region.
- Almost twice as many infants were born to mothers who are Hispanic in **Linn County** compared to mothers who are Hispanic in each **Benton** and **Lincoln** counties. We do not have actual numbers at this time.

Timeliness of Prenatal Care

Prenatal care is critical to lower the risk of low birth weight and serious health problems that can lead to death for the infant. Early prenatal care includes counseling about healthy choices to care for the mother's physical health and the infant's growth and development. Regular prenatal care with/by a healthcare professional also includes early identification and treatment for any medical complications and screening for the mother's mental health (Benton County Community Health Assessment, 2017).

- **Adequate care** is defined as care that began in the first or second trimester and included at least five prenatal visits.
- **Inadequate care** is less than five prenatal visits or care that didn't begin until the third trimester.

Inadequate or No Prenatal Care by Age Group

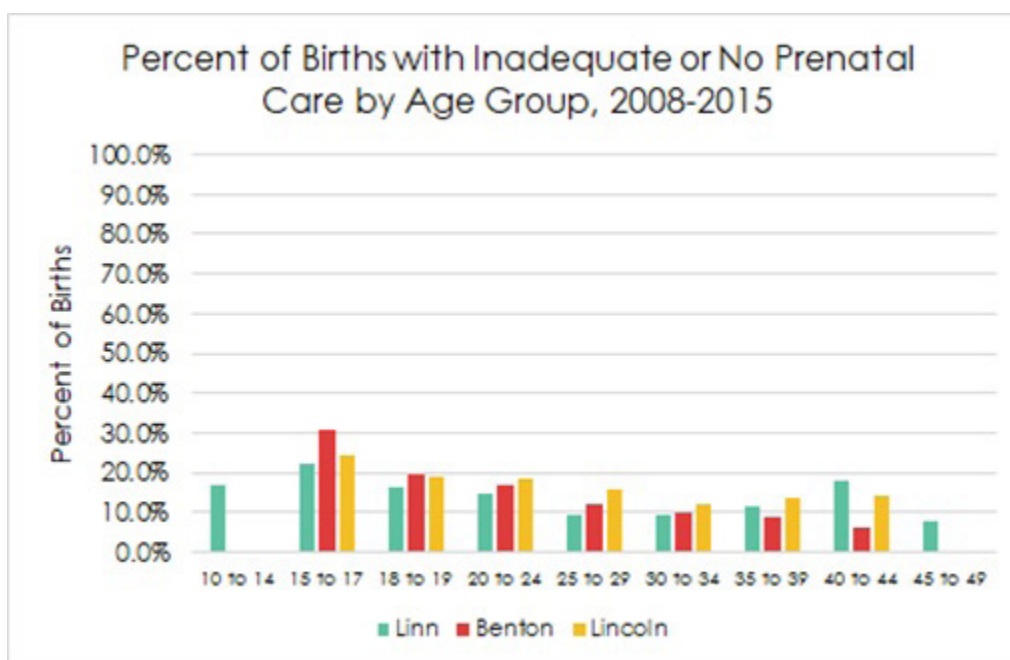


Figure 21. Percent of births with inadequate or no prenatal care, 2008-2015. Data from prenatal care by county of residence, Oregon resident births, 2008-2015, Oregon Health Authority.

- Disparities exist among different age groups within our region. Younger mothers are less likely than older mothers to access adequate prenatal care.
- Compared with women over the age of 25, women under the age of 25 in Benton County are nearly twice as likely to receive inadequate or no prenatal health care.

Prenatal Care by Race and Ethnicity

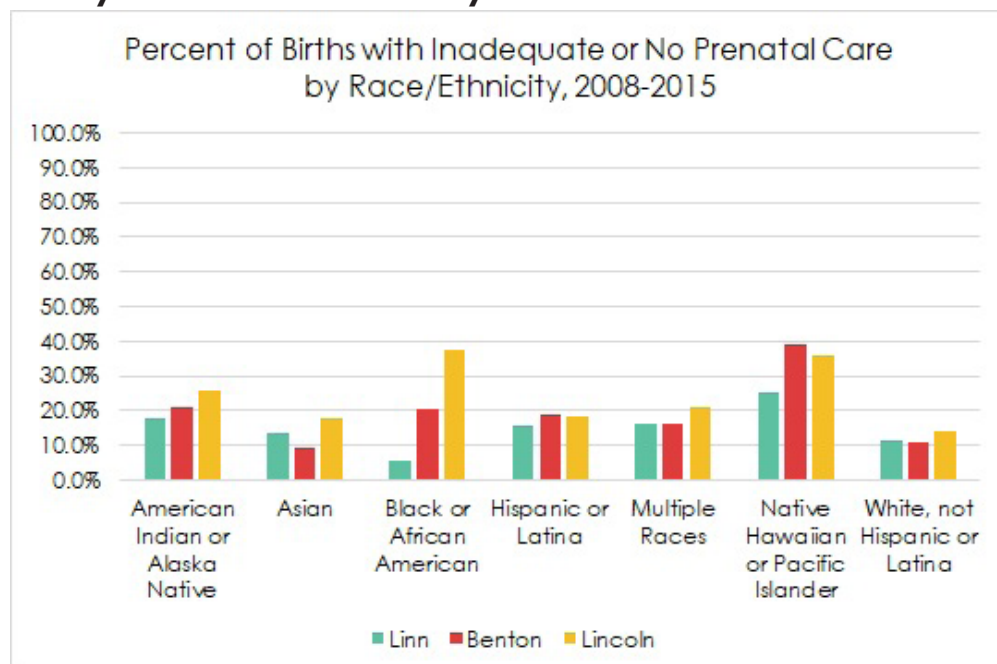


Figure 22. Percent of births with Inadequate or no prenatal care by race/ethnicity, 2008-2015. Data from demographic characteristic of mothers by race/ethnicity, 2008-2015, Oregon Health Authority.

Note: Results should be interpreted with caution due to the low number of AI/AN, Black, and Native Hawaiian or Pacific Islander mothers.

According to the regional Community Health Assessment (CHA), disparities exist in access to prenatal care among mothers of different race/ethnic groups:

- In **Linn County**, the highest percentage of mothers who accessed adequate prenatal care was among White and Black women. All other racial groups received less adequate prenatal care.
- In **Benton County**, the highest percentage of mothers who accessed adequate prenatal care was among White and Asian women. All other racial groups received less adequate prenatal care.
- In **Lincoln County**, the highest percentage of mothers who accessed adequate prenatal care was among White women. All other racial groups received less adequate prenatal care.

Teen Pregnancy

Teen pregnancy increases the risk for poor health and educational outcomes for families and children. Compared with people who delay childbearing, teen girls who have a child are less likely to finish high school, more likely to rely on public assistance, more likely to be poor as adults, and more likely to have children who have poor educational, behavioral, and health outcomes over the course of their lives (Office of Adolescent Health, 2019).

Area	Number of Teen Pregnancies				Pregnancy Rate per 1,000	
County	Total Births	Ages <15	Ages 15-17	Ages 18-19	Ages 15-17	Ages 18-19
Linn	1,622	1	25	84	10.4	57.3*
Benton	799	-	4	21	2.5*	7.3*
Lincoln	472	-	9	22	14.4	59.3**
Oregon	51,657	29	639	1,956	8.5	37.6

Table 2. Teen pregnancy counts and rates per 1,000 females for Linn, Benton, and Lincoln counties, 2017. Data from Oregon Vital Statistics Annual Report 2017 (Table 4-3. Pregnancy rates of teens by county of residence, Oregon, 2017), Oregon Health Authority.

*Indicates the pregnancy rate is significantly different from Oregon.

Due to population size, **Lincoln County's pregnancy rate (59.3), although larger than **Linn County**'s (57.3), is not considered statistically significant.

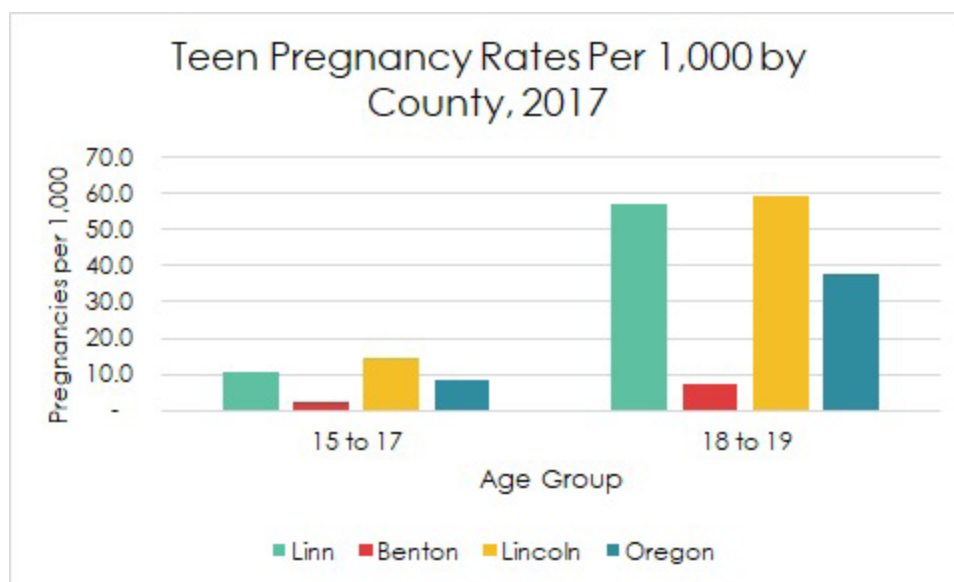


Figure 23. Teen pregnancy rates per 1,000 females for Linn, Benton, and Lincoln counties, 2017. Data from Oregon Vital Statistics Annual Report 2017 (Table 4-3. Pregnancy rates of teens by county of residence, Oregon, 2017), Oregon Health Authority.

- **Linn County** had the highest number of pregnant teens (110) in our region in 2017.
- The teen pregnancy rate in **Linn County** for ages 18–19 (57.3 per 1,000) and **Lincoln County** for ages 18–19 (59.3 per 1,000) were higher than Oregon's rate (37.6 per 1,000).
- The teen pregnancy rate for each age group (ages 15–17 and 18–19) in **Benton County** (2.5 and 7.3 per 1,000) was significantly lower than Oregon's rate (8.5 and 37.6 per 1,000).

Mothers with Less Than 12 Years Education

Parenting is a barrier to achieving a high school education and puts the mother at increased risk for low income. A high school diploma or equivalent is a base for future opportunities, such as higher education leading to increased income levels.

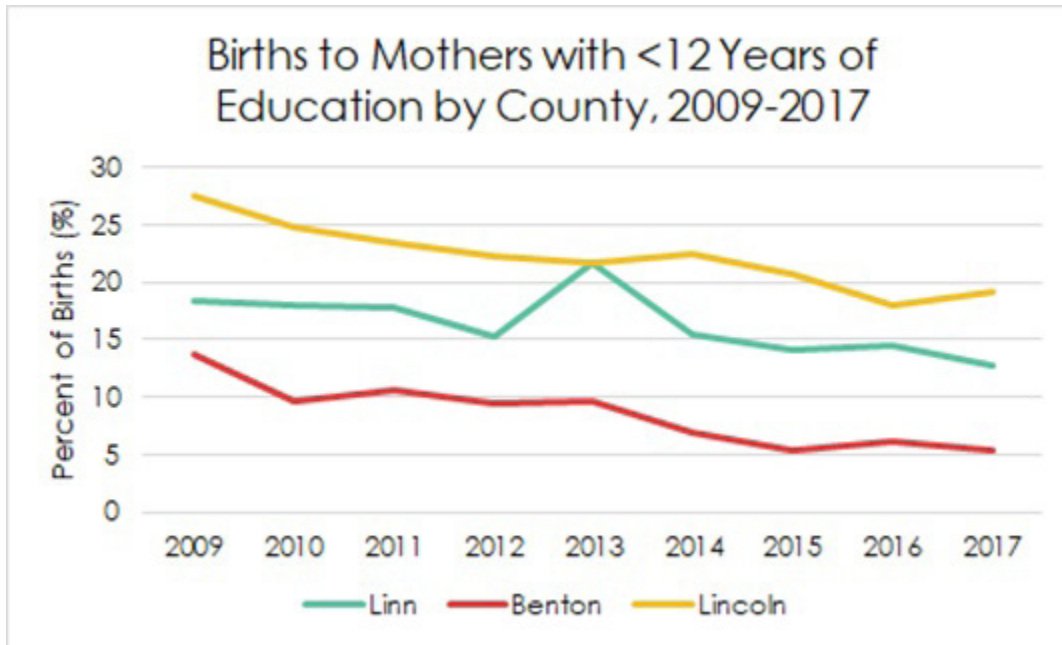


Figure 24. Percent of births to mothers with <12 years education in Linn, Benton and Lincoln counties, 2009-2017. Data from Natality, Induced Termination of Pregnancy and Teen Pregnancy Data, Annual Report Volume 1, 2009-2017, Oregon Health Authority.

- **Lincoln County** has the highest percent of births to mothers with less than 12 years of education in our region from 2009 to 2017.
- Overall, the rate of births to mothers with less than 12 years of education decreased from 2009 to 2017 throughout our region.

Unmarried Mothers

Cohabiting unions have become more common in recent decades, so an unmarried mother may not be raising the infant alone (Curtin et al., 2014).

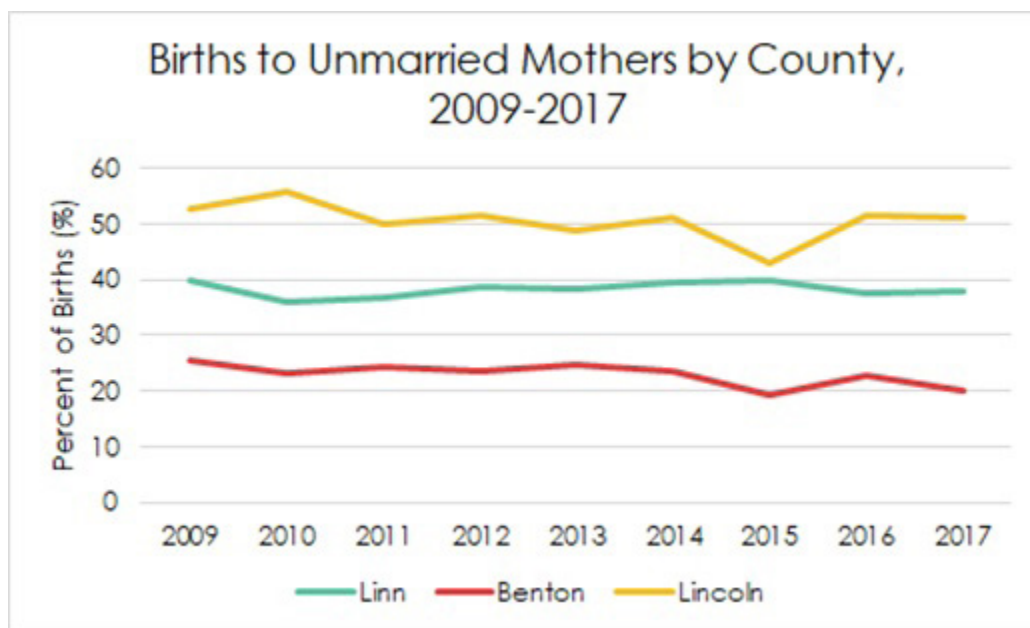


Figure 25. Percent of births to unmarried mothers in Linn, Benton and Lincoln counties, 2009-2017. Data from Natality, Induced Termination of Pregnancy and Teen Pregnancy Data, Annual Report Volume 1, 2009-2017, Oregon Health Authority.

- From 2009 to 2017, **Lincoln County** had the highest percentage of births to unmarried mothers.
- Overall, there was only slight variability in rate of births to unmarried mothers from 2009 to 2017.

Prenatal Substance Abuse

Tobacco, alcohol, and illicit drug use during pregnancy are linked with serious health consequences for both mother and infant. Abuse of multiple substances during pregnancy compounds these negative outcomes (Forray, 2016). There is very little regional data related to prenatal alcohol abuse or illicit drug use.

Births to Mothers Who Use Tobacco

Smoking during pregnancy harms both mother and infant. The infant is at increased risk for miscarriage, low birth weight, premature birth, Sudden Infant Death Syndrome (SIDS), and other medical complications and problems (CDC, 2019).

Smoking and Pregnancy 2014-2016				
Mothers who smoked during pregnancy	Linn	Benton	Lincoln	Oregon
	16.7%	6.8%	20.9%	10.0%

Table 3. Cigarette smoking during pregnancy by county, 2014-16. Data from Oregon Tobacco Facts 2018, Oregon Health Authority.

- During 2014–2016, both **Linn County** and **Lincoln County** had a higher percentage of mothers who smoked at some point during pregnancy compared to the state.
- Our region falls below the Healthy People 2020 target of 98.6 percent of mothers who abstain from smoking during pregnancy (Benton County CHA, 2017).

Impact of Substance Abuse on the Infant

Given the increase of opiate dependence nationally, Neonatal Abstinence Syndrome (when an infant goes through withdrawal from substances) is on the rise. The impact of substance abuse during pregnancy is observed in the infant within the first 24–72 hours after birth. The subsequent impact of NAS on the child and parent(s) is widespread and long lasting. Measures are not yet in place to understand the effects of this in our region. While local regional data is just beginning to emerge it is too small to report, yet given the national trends it warrants consideration in the future.

Alcohol Consumption During Pregnancy

According to the regional CHAs, "Drinking alcohol during pregnancy can cause miscarriage, stillbirth, and a range of lifelong disorders known as fetal alcohol spectrum disorders (FASDs). Children with FASDs can have a host of problems, including poor coordination, hyperactivity behavior, difficulty paying attention, poor memory, difficulty in school, learning disabilities, speech and language delays, poor reasoning and judgment skills, vision or hearing problems, and complications with the heart, kidney, or bones. There is no known safe amount of alcohol to drink during pregnancy and no known safe time to drink alcohol during pregnancy."

The Oregon Pregnancy Risk Assessment Monitoring System (PRAMS) is a survey by the Oregon Health Authority (OHA) of a sample of mothers before, during and after pregnancy. State-level results for their most recent survey of 1,468 mothers of babies born January 1 through December 31, 2015 indicate that 39.5 percent of mothers did not consume alcohol during the three months before they got pregnant. During the last trimester of their pregnancy, 88.4 percent of mothers did not consume alcohol. No regional or county-level data is available.

Breastfeeding Rates

Breastfeeding is associated with numerous health benefits for infants, such as boosting immune system response, reducing the risk of Type 2 diabetes, and preventing obesity. Breastfeeding also promotes maternal-child bonding. The American Academy of Pediatrics recommends exclusively breastfeeding for the first six months after birth and further recommends continued breastfeeding for a year or more after birth (Benton County CHA, 2017).

The vision of the Women Infants and Children (WIC) program is to ensure optimal nutrition and lifelong health for every Oregon family. WIC provides supplemental foods to women who are low-income and pregnant, women with postpartum or breastfeeding, and to infants and children under age five. WIC services include breastfeeding support, nutrition education, and connecting families with healthcare support and other community resources.

Breastfeeding in 2018				
Total	Linn	Benton	Lincoln	Oregon
Percent of pregnant women served by WIC	40%	28%	50%	33%
Percent of WIC mothers who started out breastfeeding	94%	95%	95%	95%
Percent of WIC mothers who breastfed exclusively for 6 months	35%	43%	35%	35%

Table 4. Breastfeeding rates among WIC mothers in Linn, Benton, and Lincoln counties in 2018. Data from 2018 WIC agency factsheets, Oregon Health Authority.

- The majority of WIC mothers started out breastfeeding in Linn, Benton, and Lincoln counties.
- Less than half of WIC mothers breastfed exclusively for six months in Linn, Benton, and Lincoln counties.
- In 2018, the WIC program reported serving the following women, infants, and children under age five:
 - Linn County: 4,936
 - Benton County: 1,957
 - Lincoln County: 1,915
 - Oregon: 131,912

Child Health

This section includes factors that can impact children's health, such as access and quality of health care. Data on the following child health indicators are presented in this section:

1. Health Insurance Coverage
2. Coordinated Care Organization Measures
3. Two-year Old Immunization Rates
4. Obesity
5. Oral Health
6. Water Fluoridation
7. Adverse Childhood Experiences (ACEs)
8. Parents with Developmental Disability
9. Child Abuse and Neglect
10. DHS and Foster Care
11. Food Security
12. Homelessness

Health Insurance Coverage

Having health insurance coverage as a child is a significant predictor of health, school performance, educational attainment, and economic outcomes. In Oregon, sources of health insurance for children include Oregon Health Plan, Oregon State Children's Health Insurance Program (SCHIP), Oregon Health Insurance Marketplace, and private insurers.

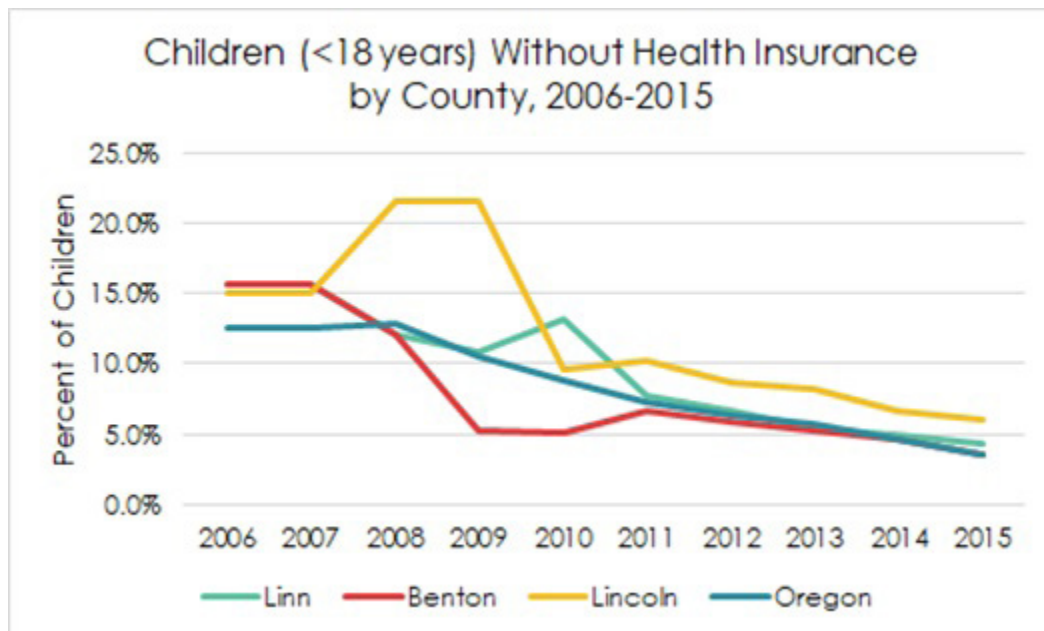


Figure 26. Children (0-18) estimated to be without health insurance coverage in Linn, Benton, and Lincoln Counties and Oregon, 2006-2015. Data from Children without health insurance, Kids Count Data Center.

- In our region, the percent of children who have health insurance increased between 2006 and 2015 (most recent data available).
- **Linn** and **Lincoln** counties have consistently more children without health insurance than the state.
- In 2014, rates of children without health insurance dropped because more children were able to join the Oregon Health Plan (OHP) due to Medicaid Expansion (OHA, June 2018). At that time, Coordinated Care Organizations (CCO) began a push to enroll.
- The Oregon Legislature passed SB 558 (Cover All Kids) during the 2017 legislative session, which guarantees that all individuals under the age of 18 will be covered by Medicaid, regardless of immigration status.

Coordinated Care Organization (CCO) Measures

The Metrics & Scoring Committee for the Oregon Health Authority (OHA) selected challenge pool measures for 2019. Through this program, CCOs achieve financial rewards if they meet specific performance benchmarks or improvement targets. CCOs receive rewards for outcomes, rather than utilization of services. This stimulus is one of several health system transformation mechanisms for achieving Oregon's vision for better health, better care, and lower costs (Source: <https://www.oregon.gov/oha/HPA/ANALYTICS/CCOData/2018-Reference-Instruction-s-quality-pool-methodology.pdf>)

The Metrics & Scoring Committee would like to include a measure of kindergarten readiness in a future CCO incentive measure set. While there is not currently a measure, the Committee chose to continue to have the challenge pool focus on measures with an impact on early childhood health (Source: <https://www.oregon.gov/oha/HPA/ANALYTICS/CCOData/2019-incentive-measure-benchmarks.pdf>)

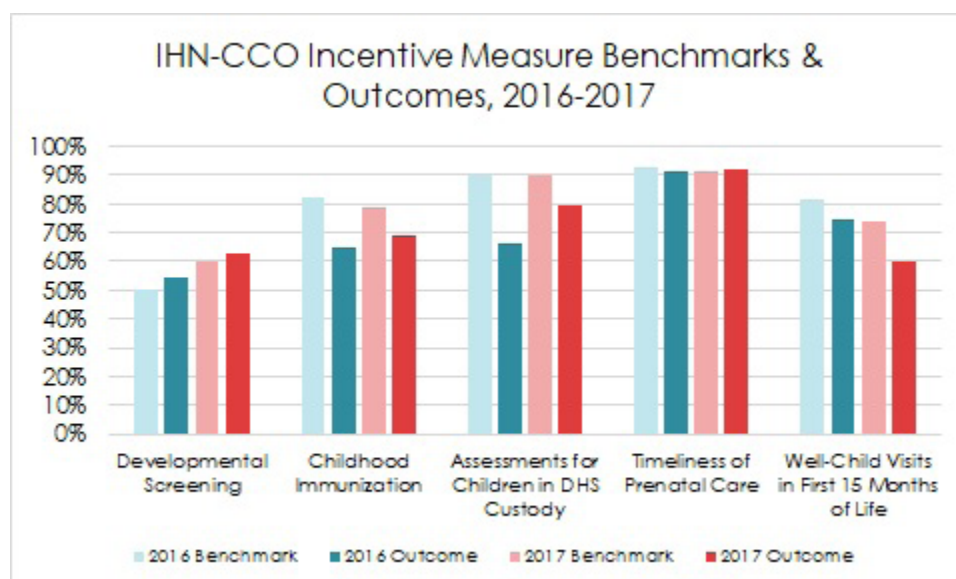


Figure 27. IHN-CCO incentive measure benchmarks and outcomes, 2016-2017. Data from Oregon Health Authority.

IHN-CCO is improving the quality of care for children on most metrics:

- IHN-CCO met the 2016 and 2017 benchmarks for developmental screenings.
- IHN-CCO did **not** meet the 2016 and 2017 benchmarks for immunization, DHS assessments, and well-child visits.
- IHN-CCO did **not** meet the 2016 benchmark for timeliness of prenatal care. However, they did meet it in 2017.

IHN-CCO 2018-2019 Incentive Measure Benchmarks			
IHN-CCO Indicators	Definition	2018 Benchmark	2019 Benchmark
Developmental Screening	Screened for risks for development, behavioral, and social delays using standardized tests	74.0%	80.0%
Childhood Immunization	Recommended before 2nd birthday	79.1%	81.9%
Assessments Within 60 days for Children in DHS Custody	Percentage of children (>4) who received a mental, physical, and dental health assessment within 60 days of the state notifying CCO's that the children were placed into custody with the DHS foster care	90.0%	90.0%
2018- Timeliness of Prenatal Care 2019- Timeliness of Postnatal Care	Percentage of pregnant women who received a prenatal care visit within the first trimester (2018 benchmark). Percentage of women who receive their first postpartum care appointment between 21 and 56 days after delivery (2019 Benchmark)	91.7%	69.3%
Well-Child Visits in the First 15 Months of Life	Percentage of children who had six visits with their health provider prior to reaching 15 months of age	NA	NA

Table 5. IHN-CCO 2018-2019 incentive measure benchmarks. Data from Oregon Health Authority.

*2018 CCO Challenge Pool Incentive Metric, CCO 2017 Metrics (2019 CCO Incentive Measure Benchmarks).

Two-Year Old Immunization Rates

Immunizations prevent death and diseases and give children and adults the best chance for a healthy life. Maintaining high immunization rates is essential to ensure community immunity, keep vulnerable people protected, and stop transmission when cases appear.

Two-Year Old Immunization Rates*				
Region	2014	2015	2016	2017
Linn	55%	59%	64%	68%
Benton	53%	55%	67%	65%
Lincoln	57%	56%	63%	61%
Oregon	60%	64%	66%	68%

Table 6. Two year-old immunization rates, 2014-2017. Data from Oregon Child Immunization Rates-Annual Rates for Two-Year Olds, Oregon Health Authority.

*Two year olds are children 24 to 36 months of age residing in the county.

*Fully immunized with 4 doses of DTaP, 3 doses IPV, 1 dose MMR, 3 doses Hib, 3 doses HepB, 1 dose Varicella, and 4 doses PCV. This is the official childhood vaccination series.

Childhood Immunization rates are a Coordinated Care Organizations (CCO) Incentive Measure. Immunization rates have generally improved from 2014 to 2017, across our region and in Oregon.

- Across our region and in Oregon, immunization rates have generally improved from 2014 to 2017.
- In 2017, **Benton County** had immunization rates below the state's rate.
- **Lincoln County** had immunization rates below the state's rate (2014 to 2017) and the lowest immunization rates in the region (2016 and 2017).

Obesity

The Oregon Women Infants and Children (WIC) program supports low-income pregnant women, postpartum women, and children under age five. WIC gathers the height/weight of children at multiple points during the year. Weight categories for children in WIC are based on Centers for Disease Control and Prevention (CDC) BMI-for-age percentiles. The Oregon WIC program provided 2017–2018 data for 6,010 children (2 to 4 years old) in our region. WIC provided two years of data because the number of underweight children in Lincoln County was small.

Definitions for CDC Categories of Weight Status:

- Underweight - $\leq 5^{\text{th}}$ percentile
- Healthy - 5^{th} to 85^{th} percentile
- Overweight - 85^{th} to 95^{th} percentile
- Obese - $\geq 95^{\text{th}}$ percentile

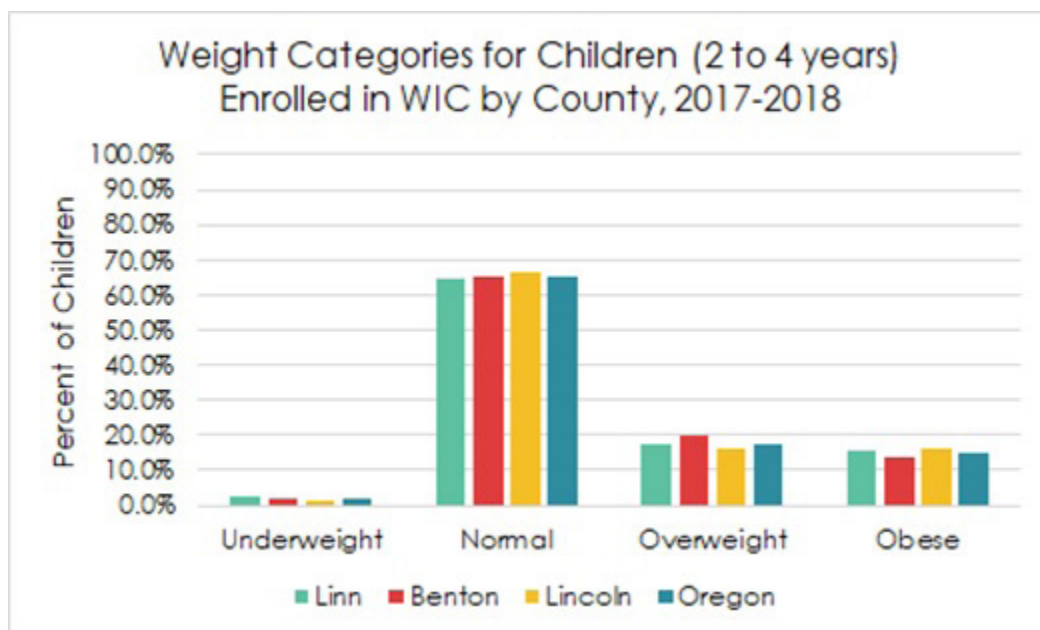


Figure 29. Percentage of children (2 to 4 years old) in WIC in each CDC weight category by county, 2017-2018. Data from Nutrition & Health Screening Program for Women, Infants, and Children (WIC), Public Health Division, Oregon Health Authority.

- The percentage of children considered underweight, normal, overweight, and obese is similar for each county and Oregon as a whole.
- For each county in the EL Hub region, 10–15% of children have obesity.
- The majority of children in **Linn**, **Benton**, and **Lincoln** counties are considered 'normal' weight.
- Fewer than five percent of children in **Linn**, **Benton**, and **Lincoln** counties are considered underweight.

Note: These WIC data do not reflect all children (ages 2 to 4) in our region.

Oral Health

The Oregon Health Authority conducts the statewide Oregon Smile Survey every five years to assess oral health among children in first, second, and third grade. The survey is an important step in understanding and addressing the problem of cavities (also known as tooth decay). Tooth decay is a significant public health concern that can be prevented with proper oral hygiene and regular visits to the dentist. Local oral health data is not available at this time, but may be worth exploring in the future.

Findings from the 2012 Oregon Smile Survey indicated:

- 48 percent of Oregon 1st grade students have had a cavity.
- 52 percent of six to nine year olds in Oregon have had a cavity.
- By third grade, 58 percent of Oregon students have had a cavity.

According to the Strategic Plan for Oral Health in Oregon (2014–2020):

- Fewer than 50 percent of expecting mothers in Oregon receive an oral exam during pregnancy.
- Only 22 percent of children ages 1–3 have had a dental visit in the past year.

Water Fluoridation

Cavities are one of the most common chronic diseases among children. According to the CDC, water fluoridation helps keep teeth strong and reduces tooth decay by about 25 percent in children and adults (2019). In 2014, 22.6 percent of Oregon residents received fluoridated water through community water systems, the third lowest percentage in the country (2016).

- **Lincoln County** has no public water fluoridation.
- 82 percent of residents in **Linn County** have access to public water fluoridation.
- 96 percent of residents in **Benton County** have access to public water fluoridation (Linn, Benton, Lincoln CHA, 2017).

*Individuals on well water are not included in this data.

Adverse Childhood Experiences (ACEs)

Adverse Childhood Experiences (ACEs) is a term used to describe neglect, abuse, violence, and/or distressed family environments that children under the age of 18 years may experience. The cumulative effect of ACEs can be traumatic, especially if experienced repeatedly beginning at a young age. There is a strong association between the amount of ACEs an individual experienced during childhood and the increased risk for negative health behaviors (smoking, drug and alcohol abuse, and risky sexual behaviors), chronic mental health concerns (depression and suicidal thoughts), and chronic diseases (heart disease, stroke, diabetes, and cancer) later in life.

Examples of ACEs include:

Abuse:

- Physical
- Sexual
- Emotional

Neglect:

- Physical
- Emotional

Household Dysfunction:

- Mental Illness of a family member
- Divorce
- Mother treated violently
- Incarcerated relative
- Substance abuse in the household

Sixth Grade Adverse Childhood Experiences (ACEs) Scores

The Oregon Student Wellness Survey, a survey of 6th, 8th, and 11th grade youth, is conducted every two years by the Oregon Health Authority in collaboration with the Oregon Department of Education. The Oregon Student Wellness Survey is designed to assess a wide range of topics that includes school climate, positive youth development, mental health, physical health, substance use, problem gambling, fighting and other problem behaviors. The survey also includes an assessment of ACEs. We do not currently have regional ACEs scores for children under age six, but we can use the results of the Oregon Student Wellness Survey to infer how ACEs are impacting young children in our region.

Percentage of 6th Graders Who Reported 'Yes' to ACEs, 2018				
ACE	Linn	Benton	Lincoln	Oregon
Were your parents ever separated or divorced after you were born?	39.8	28.2	37.5	34.1
Have you ever lived with someone who is/was a problem drinker or alcoholic?	23.9	17.1	27.3	22.6
Have you ever lived with someone who uses/used street drugs?	12.3	7.0	12.1	10.9
Have you ever lived with a household member who is/was depressed or mentally ill?	25.8	18.0	21.9	21.6
Have you ever felt that you did not have enough to eat?	21.9	18.6	27.3	19.8
Have you ever felt that you had to wear dirty clothes?	12.1	8.6	6.1	10.9
Have you ever felt that you had no one to protect you?	16.3	15.2	12.5	15.8

Table 8. Percentage of 6th graders reporting adverse childhood experiences (ACE) in 2018. Data from 2018 Oregon Student Wellness Survey, Oregon Health Authority.

- In 2018, **Benton County** had the lowest percentage of 6th graders reporting ACEs in every category compared to 6th graders in **Linn County**, **Lincoln County**, and Oregon as a whole.
- In 2018, **Linn** and **Lincoln** counties had the highest percentage of 6th graders reporting ACEs in almost every category compared to 6th graders in **Benton County** and Oregon as a whole.

Developmental Disability of Parent

County Developmental Disabilities (DD) programs support the following people with children under age six years:

- **Benton County** DD program supports 2 single mothers with children under age six.
- **Lincoln County** DD program supports 3 parents with a child under age six. Two of the parents are married.
- The number served by **Linn County** DD program is not available at this time.

According to Benton County DD, many people are diagnosed with developmental disabilities but do not qualify for DD services. Developmental disabilities include autism spectrum disorder, cerebral palsy, and fetal neurological conditions.

Child Abuse and Neglect

In 2017, the Oregon Department of Human Services (DHS) reported that 51.1 percent of all child abuse and neglect victims were six years old or younger. Although child abuse data by age distribution is not publicly available by county, it is likely that there is a similar trend in reports of child abuse and neglect in our region. There were 965 incidents of child abuse and neglect for children under age 18 in our region in 2017: mental injury (6), sexual abuse (75), physical abuse (80), threat of harm (384), and neglect (420).

Please refer to Appendix F for all incidents of abuse and neglect in each county in 2017.

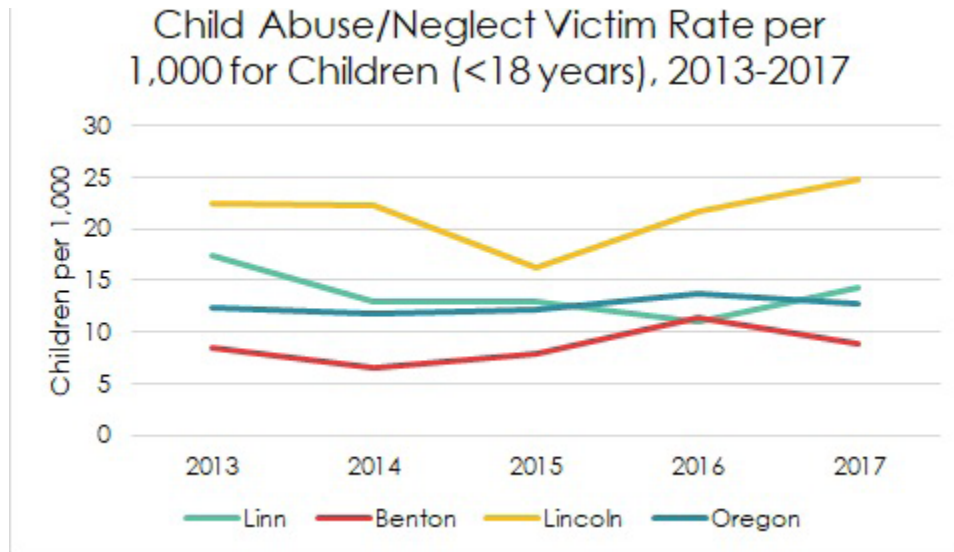


Figure 30. Child abuse/neglect victim rate per 1,000 children under age 18 years of age in Oregon and Linn, Benton, and Lincoln counties, 2013-2017. Data from 2015 and 2017 Child Welfare Data Book, Oregon Department of Human Services. Figure notes: Rates include neglect, physical abuse, and sexual abuse.

- From 2013 to 2017, **Lincoln County** had the highest founded abuse rate and the rate increased from 22.4 in 2013 to 24.7 while the rate decreased for **Linn** and **Benton** counties.
- In 2017, **Lincoln County**'s abuse rate per 1,000 victims (24.7) was the largest in the region and almost two times the state's rate (12.8).

Domestic Violence

In 2017, Oregon domestic and sexual violence programs answered 139,580 calls for help, a 1.7 percent decrease from 2016. Unfortunately, 8,325 requests for shelter could not be met in 2017. This is about a 7.7 percent decrease over the unmet requests for shelter from 2016.

Number of People Sheltered in Regional Domestic Violence Programs, 2017				
Area	Adults	<6 years	6-12 years	Teens
Linn & Benton	95	27	26	6
Lincoln	55	15	5	2
Number of Shelter Nights Spent in Regional Domestic Violence Programs, 2017				
Area	Adults	Children (<18 years)		
Linn & Benton	1,406	1,166		
Lincoln	1,355	573		

Table 9. People sheltered in Oregon domestic violence programs, 2017. Data from Oregon Department of Human Services, Abuse and Neglect Home.

Department of Human Services (DHS) In-Home Safety and Reunification Services and Foster Care

In-Home Safety and Reunification Services (ISRS) offers children safety from maltreatment by maintaining a safe household.

Area	Children Served In-Home			Population Under 18		
County	2015	2016	2017	2015	2016	2017
Linn	21	19	31	27,658	27,791	28,031
Benton	13	6	14	14,566	14,679	14,753
Lincoln	11	14	34	7,894	8,014	8,233

Table 10. Children served by DHS in-home, 2015-2017. Data from Oregon Department of Human Services, Office of Child Welfare Programs.

- In 2017, 79 children received ISRS services in our region.
- During 2015–2017, the number and rate per 1,000 children served by ISRS increased in **Lincoln County** from 11 to 34 children.
- In 2017, **Lincoln County** had the largest number of children (34) and the highest rate of children served in-home (4.1) in our region (Table 10).

When it is determined that a child is not safe at home they are placed in foster care and DHS provides services to assist families to make changes so their children are able to return home.

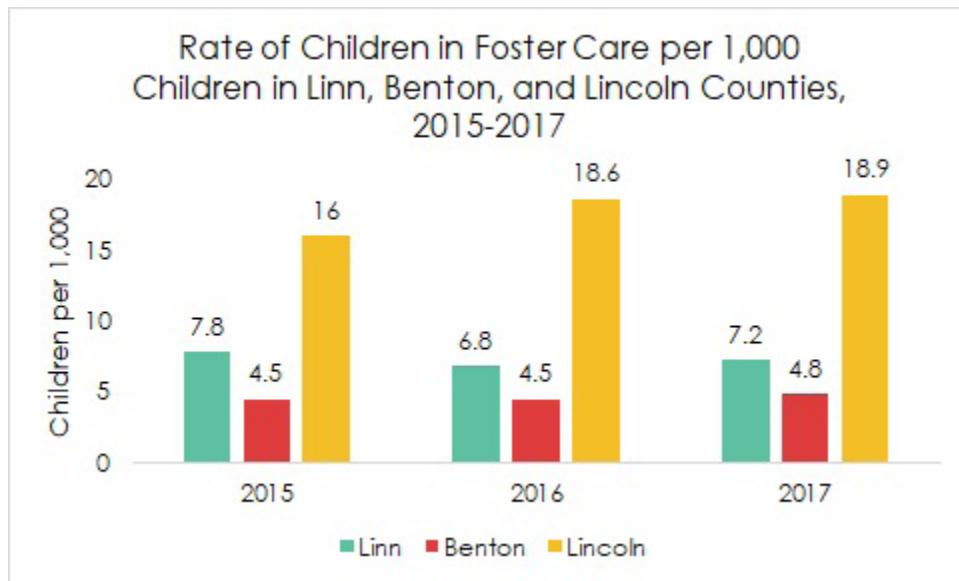


Figure 31. Number and rate of children in Foster Care per 1,000 children in Linn, Benton, and Lincoln counties, 2015-2017. Data from Oregon Department of Human Services.

- From 2015–2017, **Linn County** had the highest rate of children in foster care per 1,000 children in the region. That rate increased from 16 to 18.9 over the course of three years.
- From 2015–2017, **Benton County** had the lowest rate of children in foster care per 1,000 children in the region.

Number of Children (<6 years) Experiencing At Least One Day in Foster Care	
County	Number of Children (<6 years)
Linn	109
Benton	36
Lincoln	82

Table 9. Children (<6 years) experiencing at least one day in foster care in Linn, Benton, and Lincoln counties. Data from Oregon Department of Human Services, 2017.

- In 2017, 227 children under age 6 years experienced at least one day in foster care in our region.
- In 2017, **Linn County** had nearly three times the number of children who experienced at least one day in foster care in **Benton County**.

Food Insecurity

The USDA annually surveys households on their level of food security, which includes access to enough food for an active, healthy lifestyle (2018). Feeding America, a national nonprofit that monitors food security, uses USDA data to report an estimated 27 percent of children in our region live in food insecure households, equivalent to more than one out of every four children. Children living in food insecure households have limited or uncertain availability to nutritionally adequate food (2016).

Adequate nutrition is important for cognitive and behavioral development in children. Children from food insecure, low-income households are more likely to experience irritability, fatigue, and difficulty concentrating on tasks, especially in school, compared to other children (Benton County CHA, 2017).

Children (<18 years) Living in Food Insecure Households in 2016			
Region	Number of Food Insecure Children	Percent of Food Insecure Children	Percent of Food Insecure Children Ineligible for Federal Nutrition Programs
Linn	6,480	23.3%	24%
Benton	2,700	18.3%	41%
Lincoln	1,970	24.5%	26%
Oregon	-	20%	37%

Table 10. Children (<18 years) living in food insecure households in Linn, Benton and Lincoln Counties and Oregon, 2016. Data from 2016 Child Food Insecurity in Oregon, Feeding America.

- In 2016, **Lincoln County** had the highest percent of food insecurity among children in our region (24.5).
- In 2016, **Linn** and **Lincoln** had a higher percent of children that were food insecure than Oregon.
- In 2016, **Linn County** had the highest number of food insecure children.

Homelessness

According to the McKinney-Vento Assistance Act, a child is considered to be homeless if they lack a fixed, regular, and adequate nighttime residence.

Homelessness is further defined as an individual:

- Sharing housing of other persons due to loss of housing, economic hardship, or similar reason; are living in motels, hotels, trailer parks, or camping grounds due to the lack of alternative adequate accommodations; are living in emergency or transitional shelters; or are abandoned in hospitals
- Who has primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings;
- Who is living in cars, parks, public spaces, abandoned buildings, substandard housing, bus or train stations, or similar settings; and
- Migratory children who qualify as homeless.

Homelessness Among Children in Linn, Benton, and Lincoln Counties, 2016-2017

School District	Number of Students in Public Preschool Programs Experiencing Homelessness	Number of Students in grades K-12 experiencing homelessness	Proportion of student body experiencing homelessness
Linn County	46	976	6.0%
Central Linn	0	67	10.5%
Greater Albany	22	342	3.6%
Harrisburg	0	46	5.2%
Lebanon	16	219	5.1%
Santiam Canyon	0	13	0.3%
Scio	0	46	6.1%
Sweet Home	8	243	10.4%
Benton County	16	290	3.3%
Alsea	0	22	15.7%
Corvallis	16	253	3.8%
Monroe	0	10	2.2%
Philomath	0	17	1.1%
Lincoln County	83	644	11.8%
Oregon	-	-	3.7%

Table 13. Preschool and K-12 student homeless counts in our region and in Oregon, 2016-2017. Data from Oregon Department of Education, McKinney-Vento Act: Homeless Education Program.

- Student homeless counts indicate **Lincoln County** has the highest need for housing security compared to the region and to the state.
- At 83 homeless students, **Lincoln County** had the largest number of children in public preschool programs experiencing homelessness in 2016-2017.
- **Lincoln County** School District had the 7th highest homeless student count among Oregon School Districts.
- While **Benton County**'s overall percentage rate is (3.3) is very low, it is important to note that Alsea School District has the highest percent (15.7) of students experiencing homelessness in 2016-2017 in our region.
- Nine of the region's 12 school districts have a higher proportion of students experiencing homelessness compared to Oregon as a whole.

Appendix F

Number of Incidents of Abuse/Neglect, 2017						
Region	Mental Injury	Neglect	Physical Abuse	Sexual Abuse	Threat of Harm	Total Incidents
Linn	5	232	38	51	201	527
Benton	-	63	16	8	70	157
Lincoln	1	125	26	16	113	281
LBL Region	6	420	80	75	384	965

Nine of the region's 12 school districts have a higher proportion of students experiencing homelessness compared to Oregon as a whole.



Glossary of Acronyms

ACES	Adverse Childhood Experiences
CHA	Community Health Assessment
C2Q	Commitment to Quality
CBO	Community-Based Child Care/Community-Based Organization
CCO	Coordinated Care Organization
CDC	Centers for Disease Control and Prevention
CCRIS-P	Oregon Department of Education Child Care Regulatory Information System - Partner Version
DHS	Department of Human Services
DAP	Developmentally Appropriate Practice
DD	Developmental Disabilities
ECSE	Early Childhood Special Education
EI	Early Intervention
ELC	Early Learning Council
ELD	Early Learning Division
ELL	English Language Learners
ESD	Education Service District
ERDC	Employment-Related Day Care
FASD	Fetal Alcohol Spectrum Disorder
FCCN	Focused Child Care Networks
FPL	Federal Poverty Level
IEP	Individualized Education Program
IFSP	Individualized Family Services Plan
ITMH	Infant/Toddler Mental Health
IHN-CCO	InterCommunity Health Network CCO
KA	Kindergarten Assessment
KA-AL	Kindergarten Assessment Approaches to Learning
ODE	Oregon Department of Education
OHA	Oregon Health Authority
OHP	Oregon Health Plan
OHCS	Housing/Oregon Housing and Community Services
OCHIN	Oregon Community Health Information Network
OPEC	Oregon Parenting Education Collaborative
PD	Professional Development
PRAMS	Pregnancy Risk Assessment Monitoring System
SCHIP	State Children's Health Insurance Program

SSP	Self-Sufficiency Programs
TA	Technical Assistance
TGR	Third Grade Reading
UAs	Urbanized Area
UCs	Urban Clusters
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children



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Data & Evaluation Work Group

The Data & Evaluation Work Group ensures that the Early Learning Hub has the data it needs to make strategic decisions informed by an understanding of the target population and progress towards outcomes.

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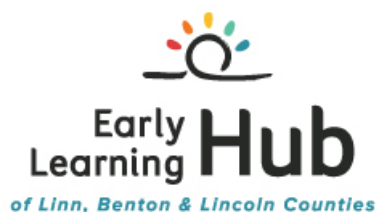
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