

Oregon's Kindergarten Assessment: *Children's scores across schools, districts, and counties*

Contributors:

- Shannon Lipscomb, Alicia Miao, Jenn Finders, Bridget Hatfield, & Brianne Kothari, *Oregon State University*
- Katherine Pears, *Oregon Social Learning Center*
- The Oregon School Readiness Consortium

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Today's Presentation

- Research Questions
- Approach
- Initial Findings
- Next Steps
- Q&A



Research Questions

1. How do KA scores differ across communities within Oregon?
2. What helps explain these differences?



Approach

- KA data from the 2014-2015 school year.
- Examine “communities” at 3 levels.
 - Schools: 706
 - School districts: 178
 - Counties: 36

Schools with scores for ≤ 3 children were considered missing in the analysis

- Link KA data with other data about these communities from various sources (next slide).

We cannot determine causality in the links between community factors and KA scores. We are modeling associations.

Data about Communities: 3 General Categories

Sociodemographic

**Health & Well
Being**

Early Learning

Data about Communities

Sociodemographic

- Total Population
- Economic Disadvantage
- Adult Education Levels
- Race/Ethnicity
- Linguistic Minority
- Crime/Violence

Health & Well-being

- Nutrition
- Health Care Access
- Community Health
- Maternal & Child Health

Early Learning

- Access to ECE Programs
- Quality of ECE Programs

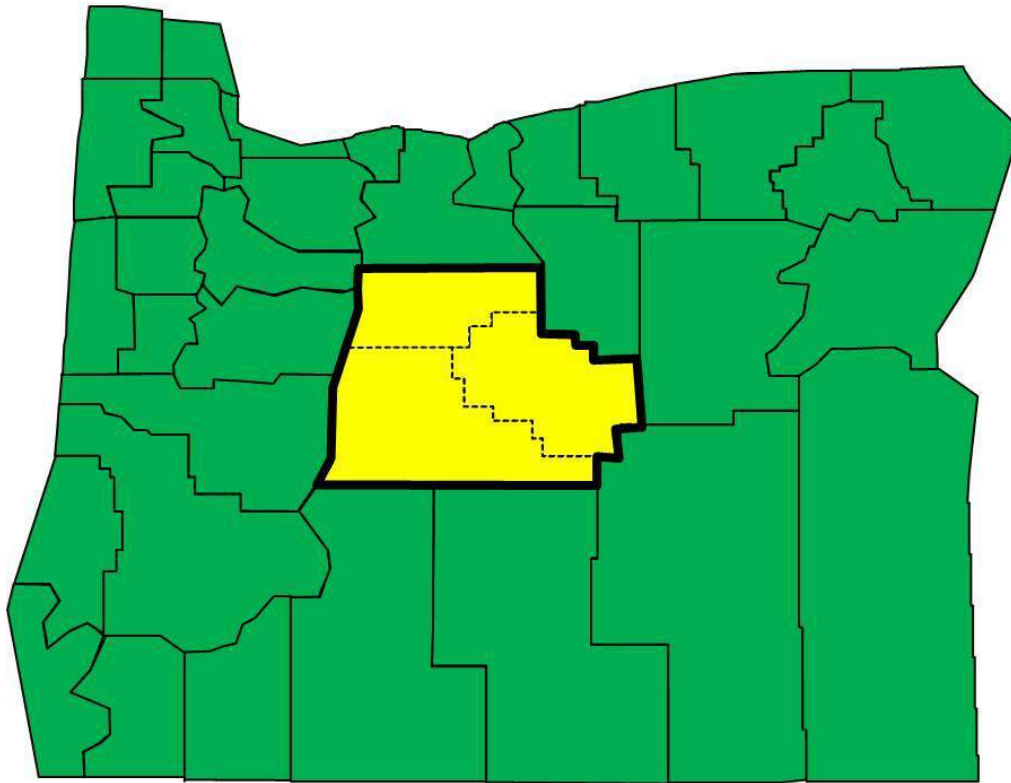
Initial Findings: School-level averages in KA scores

	Mean	Standard Deviation	Range
Self-regulation	3.57	0.33	2.00 - 4.47
Interpersonal skills	3.92	0.34	2.13 - 4.89
Mathematics	8.12	1.15	4.50 - 11.87
Letter Names	18.04	6.51	4.00 - 39.17
Letter Sounds	6.79	3.80	0.48 - 21.44

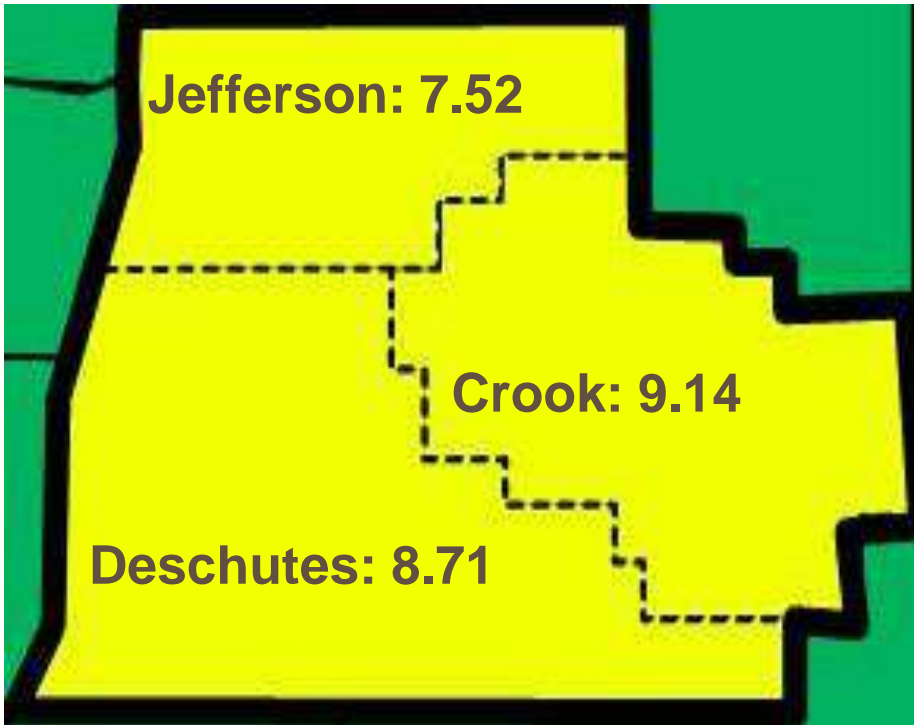
Examples of Scores across Counties, Districts, & Schools

Central Oregon Counties

Crook, Deschutes, Jefferson



Examples of *Math Scores*: Central Oregon



Jefferson County: 7.52

Jefferson District: 7.24

school scores: 6.79 to 7.62

Culver District: 8.37

one school in Culver district

Black Butte District: n/a

Crook County: 9.14

Crook is only district in county

School scores: 7.77 to 11.75

Deschutes County: 8.71

Bend LaPine District: 8.56 (school scores: 6.65 to 10.29)

Redmond District: 9.19 (school scores: 8.16 to 9.66)

Sisters District: 7.94 (*one school in Sisters district*)

Initial Findings

How much variability is there in scores by school, district, and county across Oregon?

	Variability		
	County	District	School*
<u>KA Domains</u>			
Self-regulation	0.05%	5.2%	94.75%
Interpersonal skills	1.5%	0.3%	98.2%
Mathematics	1.0%	24.8%	74.2%
Letter Names	5.3%	25.1%	69.6%
Letter Sounds	5.2%	26.2%	68.6%

* *Variability at the school level includes the residual error in children's scores not explained by this model.*

What helps explain differences in scores?

A summary of community factors across Oregon

Variables	Mean	Standard Deviation	Range
School level			
% children eligible for free-reduced lunch	58.08	21.24	4.9 – 94.53
District level			
% children from racial/ethnic minority	25.72	15.28	0 – 81.3
County level			
Limited access to healthy foods	6.75	0.95	3.4 – 8.6
# of childcare slots per 100 children	18.03	7.84	7 – 47
% adults in good physical and mental health	64.13	3.09	60.8 – 84.5

	Deschutes			Crook	Jefferson	
	Bend LP	Sisters	Redmond	Crook	Jefferson	Culver
<u>School</u>						
Lowest % free/red lunch	11.77	38.51	44.63	65.4	80.99	71.26
Highest % free/red lunch	89.24		69.14	78.5	90.65	
<u>District</u>						
% racial/ethnic minority	15.7	12.87	21.8	24.19	70.77	36.39
<u>County</u>						
Limited food access		7.3		6.9	6.4	
Child care supply		22		12	27	
Health		66.2		65	64.65	

What helps explain differences in Oregon KA scores?

<u>Self-Regulation</u>	z
Free and Reduced Lunch	-5.17***
<u>Interpersonal skills</u>	
Free and Reduced Lunch	-5.07***
<u>Mathematics</u>	
Free and Reduced Lunch	-18.31***
Percent Minority	-2.39*
Limited Access to Healthy Foods	-3.09**
Child Care Slots per 100 Children	3.23**
Good Adult Physical, Mental Health	1.74†
<u>Letter Names</u>	
Free and Reduced Lunch	-28.18***
Percent Minority	-2.93**
Child Care Slots per 100 Children	4.97***
<u>Letter Sounds</u>	
Free and Reduced Lunch	-24.53***
Child Care Slots per 100 Children	4.25***
Good Adult Physical, Mental Health	1.74†

Key

*** $p < .001$

** $p < .01$

* $p < .05$

† $p < .10$ (trend)

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 = Early Learning

Summary of Findings to-date

1. How do KA scores differ across communities within Oregon?

- From one school to the next (within a district/county): **A lot**
- From one district to the next (within a county): **Some**
- From one county to the next: **A little- enough worth examining**

2. What helps explain these differences?

- Sociodemographic factors

- % of children in the school eligible for free/reduced lunch.
- % of children in the district from racial/ethnic minorities.

- Early learning factors

- # child care slots per 100 children in the county.

*Partial evidence was detected for **Health & Well-being** factors.*

Remember: we cannot determine causality.

Next Steps – we have a lot more work left!

- Does the link between free-reduced lunch and KA scores differ by school district?
 - Examine more school-level variables.
 - Child care slots, % ethnic/racial minority, % dual language learners
 - Layer-in “investments” in early learning – can we quantify their contribution to KA scores within communities?
 - P-3, K innovation, Early literacy, Parenting education
 - Examine gaps in KA scores.
- Identify community factors linked with fewer disparities in KA scores.

Questions?

Thank you!

For more information contact:

Shannon.Lipscomb@osucascades.edu

541-322-3137