

School-age Supply and Demand: Child Care Access and Equity



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Report in Response to House Bill 2346

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Executive Summary

Through House Bill (HB) 2346, the 2019 Oregon Legislature created the **Task Force on Access to Quality Affordable Child Care**. This bill directed the Early Learning Division to conduct three studies to inform the work of the Task Force. As directed by the Legislature, this study examines how rurality and demographic characteristics of children and families are associated with child care supply, focusing on child care for school-age children (ages 6-12 years).

School-age child care differs in meaningful ways from the care of young children. For example, school-age care often encompasses a wide range of activities not typically thought of as child care (sports, recreation, and enrichment activities). School-age care is mostly part-time—before and after school; and is often delivered by public organizations such as parks and recreation or school districts.

Operating less than four hours a day and being public entity means that programs often do not require licensing under Oregon child care laws. Because much of this care does not come under Oregon’s definition of child care, there lacks a comprehensive data source for school-age child care. Lack of data results in woefully inadequate supply counts that limit the ability to study supply and demand for this age group.

Prior to COVID-19 and even taking into consideration data limitations, the inadequacy of school-age child care supply was evident. More than half of Oregon communities have either no known school-age child care slots, or so few slots that what is available can serve less than 10% of the school-age population. Rural communities are even more severely disadvantaged, having, on average, less child care availability compared to urban communities (71% of rural communities are severe deserts versus 48% of urban communities).

Research indicates that demographic *access barriers*, or characteristics of children and families that limit access to child care (e.g., child race/ethnicity, household income) shape a family’s ability to utilize existing child care options. However, our research failed to detect significant associations between the barriers at a community level (e.g., communities with a high proportion of low-income families) and the adequacy of community supply. We expect that community differences do indeed exist, but that we could not detect those differences due to the scarcity of known school-age care across the state.

COVID-19 has exacerbated school-age child care inadequacies. With distance learning the norm for at least part of the 2020-21 school year for most communities, school-age child care is of significant concern. There is the need to both provide safety and nurturance, while also supporting learning. It may well be that families that had arrangements for before and after school are now left without options for a full-day option. Programs that delivered part-day programs are challenged to offer full-day and provide instructional support as well.

In conclusion, this report provides a picture of known child care for school children pre-pandemic. Because school-age child care largely occurs outside of the regulated child care and

education system, this study provides an incomplete view of the supply realities for this age-group. Despite data limitations, results suggest there is inadequate child care supply for school-age children across the state, and in particular, across rural Oregon communities. The existing supply is likely even harder to access for some families, such as low-income households, households with children of color, and single-parent households. Providing child care during COVID-19 has proven to be complicated and costly, creating a significant strain on the system, making it difficult for businesses to keep their doors open. All the while, parents are juggling their own employment and child(ren)'s distance learning needs, making difficult decisions about where their children are to spend their days.

Together, the events of 2020 are bringing to the forefront existing weaknesses in Oregon's current child care and education system. To better address the inadequate supply of school-age child care, more work is needed on multiple fronts.

- Findings suggest an urgent need for short-term school-age child care solutions to support parents, existing providers of all types, and communities as a whole. Identification of statewide leadership is needed.
- This report was unable to capture the full extent of child care arrangements used by school-age children. Considering that much of school-age care is with informal, often unpaid adults, parents are the primary source of this information, asking parents via a state-wide, representative survey about their school-age child's arrangements would allow policymakers to make informed policy decisions tailored to each communities' unique characteristics needs.
- More information is needed to get a fuller picture of the existing supply beyond what is captured in this report. This includes information about before- and after-school programs within K-12, parks and recreation, and community organizations. Support is needed for sharing data about providers, families, and children across sectors and agencies.
- In addition to information sharing, efforts towards solutions that encourage more system coordination between the early learning system and K-12, and other community organizations would be beneficial.
- Strategies to better support informal providers (unpaid/paid adults) at the community level would strengthen the capacity of all adults who are caring for school-age children. Community institutions, like public libraries, are well situated to engage and support anyone caring for a school-age child.

School-Age Child Care: Access and Equity

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School-Age Child Care Differs from Care for Young Children.

School-age care is distinct from child care for young children for several reasons:

- First, young children often need full-time care, whereas school-age care is typically part-time, as children typically spend on average 30 hours a week in school during the school year (although families often need full-time care during breaks and in the summer). The pandemic is greatly increasing the need for full-time care for school-age children.
- Second, parents are less available for school-age children as school-age children are more likely to live in households in which all parent(s) are employed (70%) compared to when children are younger (63%); and that employment is more likely to be full-time.
- Third, school-age children engage in a variety of activities that are not technically child care but may play that purpose for parents (e.g., sports, camps, enrichment activities).
- Fourth, children attend before or after-school care programs offered by school-districts or other organizations. Programs are often not required to be licensed by the Office of Child Care because they operate fewer than four hours or are operated by a public entity (e.g., school or county). These programs may not be captured in state child care data and thus no one can have confidence in our knowledge of how many programs operate, their auspices, or offered services.

Thus, it is clear that school-age child care differs in meaningful ways from that for younger children. The national standard for inadequate supply (less than 1 slot for every 3 children or that more than 33% of children have access to a slot) was created for the supply for young children and the differences between care for younger and older children noted above reduce confidence in it being a meaningful measure for school-age. However, we utilize it in some of the results below as its familiarity makes it useful (albeit imperfect) to many.

¹ For findings for young children age 0-5 years, see companion report: *Supply and Demand in Oregon: How Equitable is Child Care Access?* (Pratt, Weber, Sektnan, Caplan, & Houston, 2020)

The Current Study

This study focuses on child, family, and community characteristics that are likely to affect a child's child care access or the adequacy of the community's child care supply for school-age children. In HB 2346, the Oregon Legislature identified the following characteristics of children, families, and communities whose child care access they wanted examined:

- Geography
 - Rurality (vs. Urbanicity)
- Household demographic information, including:
 - Child's age
 - Child's race/ethnicity
 - Language spoken in the home.

The following child and family characteristics are also examined in this study since they have been shown to be associated with individual family child-care selections:

- Household income
- Single employed parent status.

Research shows that each of these characteristics affects an individual child's care access. For example, a child that lives in a household with an income of less than 185% Federal Poverty Level is described as having a low-income access barrier. We also hypothesize that when a high proportion of community children shares a characteristic such as low-income, the community itself will experience an inadequate child care supply (i.e., be a child care desert). For example, we expect that communities with a higher than state average percentage of children living in low-income households will have a low-income access barrier; and thus we hypothesize that they will have a less adequate supply of child care.

This study addresses school-age child care access by relating data about children and families (demand) with data on child care availability (supply) at the community (census tract) level. In the following section, we describe how we created estimates for all of the elements used to capture supply (child care slots) and demand (characteristics of children and parents).

Methods

Definition of Community

In this study, communities are defined by census tracts. Oregon has 834 census tracts, including some with no regular population (e.g. airports, coasts, national parks) and some with no or very few (<10) school-age children. Accordingly, 821 census tracts are included in the analyses for this report; excluding those with no child population.

School-Age Children in Oregon

According to U.S. Census Bureau's American Community Survey (ACS) estimates, there are 297,866 children age 6-12 living in Oregon. Communities range from a low of zero children to a high of 1,885 children. Communities with zero children are excluded from the analysis.

Rurality, Community Characteristics, and Access Barriers

Defining a Community as Rural. The present study defines a community (i.e., census tract) as rural using a continuous metric which takes into account population density, urbanization, plus commuting behaviors of the residents². This captures the difference between living in an isolated rural community from living in a rural area that is within commuting distance to a metropolitan area. This continuous metric was categorized to allow for comparison between rural and urban communities.

Measuring Community Characteristics. Community-level data on children and families came from 5-year (2014-2018) estimates from the American Community Survey (ACS) produced by the U.S. Census Bureau. Demographic data on child's age, ratio of income to poverty status for children, race and ethnicity of children, and parental employment status were obtained for the State of Oregon and for all communities (census tracts). Community characteristics for all geographies were calculated as percentages (e.g. percentage of school-age children in a community who live in low-income households).

Identifying Communities with Access Barriers. In this report, a community characteristic was defined as an access barrier if, in a community, the percentage of children or families with that characteristic was at or above the state average of children and families with that characteristic³. The characteristic also had to be identified in the existing research literature as a barrier to accessing child care.

Below we describe the variable creation process for each community characteristic and the related community indicator being hypothesized as an access barrier, which is labeled in parenthesis in the bullets below:

- **Household Income (Low-Income).** We used the percentage of school-age children in households with annual incomes below 185% of the Federal Poverty Limit (FPL) to examine the association between household income and child care supply. After first investigating different levels of household income in relation to supply, we choose to use 185% FPL⁴ as that is the current income eligibility limit for Employment-Related Day Care. A community is characterized as low-Income when the percentage of children living in households with incomes below 185% FPL is higher than the state average of 37% of children living in a household with low income.

² The Rural/Urban Commuting Area codes (i.e., RUCA codes) provided by the Economic Research Service of the U.S. Department of Agriculture categorize each community (census tract) on a 1-10 scale that supports classification of a community as rural or urban. For the purpose of this report, RUCA codes 1-3 are considered urban and codes 4-10 are considered rural. The most recent RUCA codes are based on data from the 2010 decennial census and the 2006-10 American Community Survey. <https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/>

³ To be more specific, the count of children who share a given characteristic in the state was divided by the total count of children in the state to calculate the percentage who share that characteristic. The same percentages were created for each census tract and compared to the state average.

⁴ For reference, 185% of Federal Poverty Limit in 2020 is equivalent to \$40,182 a year/\$3,349 a month for a family of three.

- **Single Employed Parent (Single Parent).** We estimated the percentage of school-age children who live with a single employed parent. This does not include all single parent households, but rather reflects the portion of fully-employed households⁵ that are single parents and, thus, more likely to be using child care than an unemployed single parent. A community is characterized as high in single employed parents when the rate of single employed parent households is higher than the state average of 36% of children of fully employed parents in the community living with a single employed parent.
- **Language Spoken in Home (Limited English).** The U.S. Census reports the prevalence of children who live in limited English proficiency households only for children age 5-17 years. In a limited English proficiency household, everybody over 14 has at least some difficulty with English (that is, none speak only English or speak English “very well” in addition to another language). A community is characterized as being a limited English community when the rate is higher than the state average of 4% of children over age five in the community living in a limited English-speaking home.
- **Child Race/Ethnicity (Children of Color).** Given low percentages and uncertainty of estimates for children who identify as specific races or ethnicities (particularly Black, Native American, Asian, Native Hawaiian, Hispanic/Latinx, and two or more races) in many Oregon communities, we were limited to the use of a combined measure for children of color. Thus, we use two categories to capture race/ethnicity: White (non-Hispanic/Latinx) and Children of Color. A community is characterized as a children of color community when the rate of school-age children of color is higher than the state average of 36% of children in the community identifying as a child of color.

Child Care Supply

Community child care supply is captured by the total number of slots present in a given census tract for children 6-12 years of age. The child care supply estimates reported here are from the 2018 Estimating Supply dataset put together by Oregon State University with assistance from Central Coordination at Western Oregon University⁶. This data compared licensing (Child Care Regulatory Information System) and Child Care Resource & Referral (NACCRRAware) databases to capture all child care facilities who were active as of January 1, 2018. The facility’s regulatory status and desired capacity by age group were then updated by contacting each facility to ensure all data were comparable and current.

This report uses the desired capacity, or the number of slots an early care and education provider desires to fill, as the measure of supply. This metric may differ from their licensed capacity since a facility may be licensed for more slots than they chose to fill. Additionally,

⁵ A fully-employed household is one that has either both parents employed in a two parent-household, or a single parent employed in a single-parent household.

⁶ For additional details about the Estimating Supply dataset, see the Child Care Desert Report (Pratt, Sektan, & Weber, 2019) <https://health.oregonstate.edu/sites/health.oregonstate.edu/files/early-learners/pdf/oregon-child-care-deserts-01-29-2019.pdf>

slots represent the number of children a facility can have at one time. If a program has part day programs (i.e., separate a.m. and p.m. sessions), then two children can be served with one slot. The number of slots does not reflect the number of children who are actually enrolled in programs, but instead represents the number of slots available to children in the community. Another way to think of this is that the slots represent the number of children a provider can have at their facility at any one point in time.

Findings

Unregulated child care makes up the majority (52%) of care for school-age children.

There are 297,866 children ages 6-12 in Oregon. Statewide in 2018, Oregon had an estimated 56,413 slots for these 297,866 school-age children. This care⁷ is both regulated, including licensed centers and family child care programs, and unregulated, including recorded and license-exempt centers and family programs. Table 1 displays the number of slots for school age children by regulation type of the provider. Unregulated child care makes up the majority of available care (52%) for school-age children, with most of that care in recorded programs (39%). Care for this age group is mainly part-time and hence, is not required to be regulated. In contrast, only 15% of known child care for young children (0-5 years) is unregulated.

Table 1
Number of School-age Slots by Regulation Type

Regulation Types	School-age Children 6-12 slots	
Regulated	26,982	48%
Unregulated	29,431	52%
Recorded	21,854	39%
Exempt	7,577	13%
Total All Types	56,413	100%

Child care supply and demand occurs at the community level.

To compare child care access across communities, one must simultaneously consider the number of slots (supply) and the number of children in that community (demand), creating a percentage of children that have access to a child care slot. This ratio has been used in both Oregon-based and national work, most recently with the child care desert framework⁸. We caution readers that the desert threshold was defined for young children so is very likely not an ideal threshold for school-age children. However, we utilize it in some of the results below as its familiarity makes it useful (albeit imperfect) to many.

⁷ Slots for school age children include slots in certified centers (36%), certified large family homes (3%), registered small family homes (9%), recorded programs (39%), license-exempt centers (13%), and license-exempt family homes (<1%) for children 6-12 years old.

⁸ <https://www.americanprogress.org/issues/early-childhood/reports/2018/12/06/461643/americas-child-care-deserts-2018/>

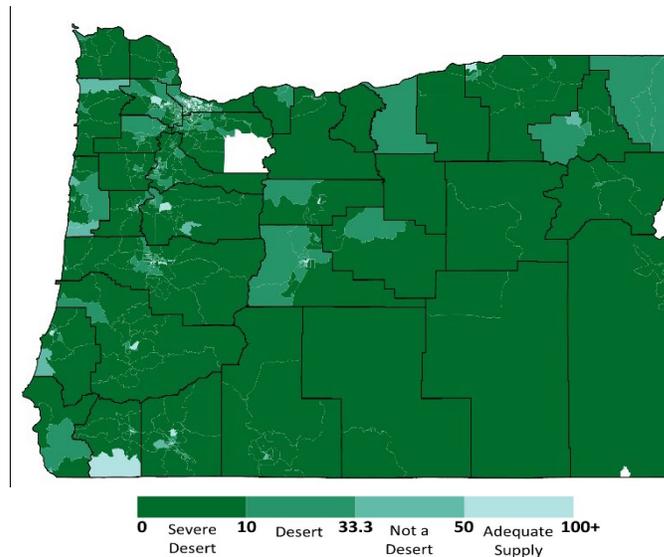
The majority (85%) of Oregon communities are child care deserts for school-age care. Half of communities (54%) have either no known school-age child care slots, or so few slots that what is available can serve less than 10% of the school-age population (i.e., are severe deserts). For comparison, 72% of communities are deserts for young children (0-5 years), with 34% of communities being severe deserts for young children. As can be seen in Table 2 below and **Map 1: Percent of School-age Children with Access to a Child Care Slot**, not only do most Oregon communities have very little care, but this is the reality across the state.

Table 2

Percentage of Communities Ranked by Desert Status

Percent Access to a Slot	Communities		School-age Population	
	N	%	N	%
0 - 10% (severe desert)	442	54%	153,897	52%
10 - 33.4% (desert)	252	31%	110,591	37%
33.4 - 50% (non-desert)	49	6%	14,521	5%
>50% (non-desert)	78	9%	18,857	6%
Total	821		297,866	

Map 1: Percent of School-age Children with Access to a Child Care Slot



For larger view of map, see page 6.

Rural communities have less adequate school-age child care supply than do urban communities.

Rural communities have, on average, less child care availability compared to urban communities. As shown in Table 3, most rural communities (71%) fall into the severe desert category compared to a little less than half of urban communities (48%). Thus, although there

is a shortage of school-age child care slots across Oregon’s communities, child care slots in rural communities are particularly limited.

Table 3

Percentage of Communities Ranked by Desert Status: Urban and Rural

Percent Access to a Slot	Urban Communities		Rural Communities	
	N	%	N	%
0 - 10% (severe desert)	288	48%	154	71%
10 - 33.4% (desert)	210	35%	42	19%
33.4 - 50% (non-desert)	36	6%	13	6%
>50% (non-desert)	70	12%	8	4%
Total	604		217	

Demographics shape a family’s ability to access child care, but do not appear to be associated with the adequacy of community school-age supply.

A family’s demographic characteristics have been shown to be associated with their ability to access existing care options. Notable access barriers include:

- Low Income. Low-income families struggle to use paid care. This is largely because paid care is unaffordable. Further the nontraditional and unpredictable hours common in low-wage employment restricts a family’s ability to use care, because few providers offer non-traditional hours.
- Single Employed Parents. Employed parents who are single parenting face challenges associated with low-income families, as well as the absence of another adult to share daily parenting tasks such as providing transportation to and from a care setting. These constraints, in turn, restrict care options.
- Children of Color. Families with Children of Color may face additional restrictions to accessing care related to household income and employment, which are interrelated with race. Additionally, a growing body of research suggests that experiences of segregation and racism further restrict a family’s care options.

The challenges of securing and providing care are exacerbated by structural inequities that increase the barriers families face and exacerbate the negative impact on parent, child, and family well-being.

We were unable to detect how the school-age supply may vary in communities where many of the households are characterized by access barriers (e.g., a high percentage of low-income households). We believe this is largely due to the widespread shortage of school-age supply across the state, regardless of community demographics that left little variability to pick up by statistical methods.

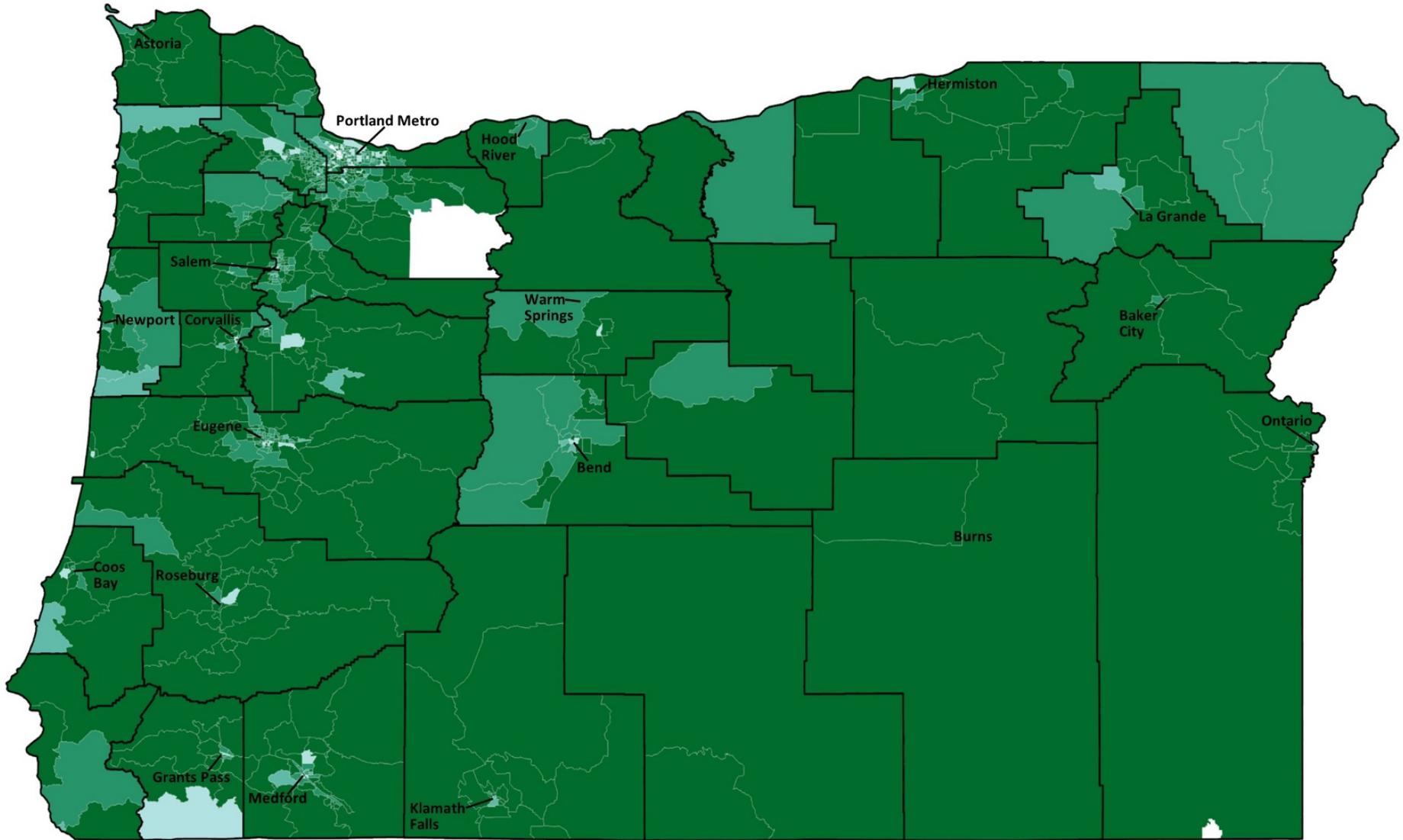
Conclusions and Policy Implications

In conclusion, this report provides a picture of known child care for school-age children pre-pandemic. Because school-age child care largely occurs outside of the regulated child care and education system (e.g., care is often in informal settings with family, friends, and neighbors, sports, and school-district-run programs), this study provides an incomplete view of the supply realities for this age-group. Despite data limitations, results suggest a woefully inadequate child care supply for school-age children across the state, and in particular, across rural Oregon communities. The existing supply may be even harder to access for some families, such as low-income households, households with children of color, and single-parent households. Providing child care during COVID-19 has proven to be complicated and costly, creating a significant strain on the system, making it difficult for businesses to keep their doors open. All the while parents are juggling their own employment and child(ren)'s distance learning needs, making difficult decisions about where their children are to spend their days.

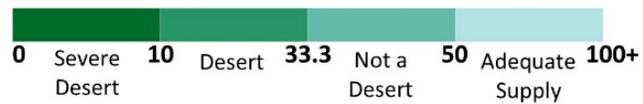
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- This report was unable to capture the full extent of child care arrangements used by school-age children. Considering that much of school-age care is with informal, often unpaid adults, parents are the primary source of this information, asking parents via a state-wide, representative survey about their school-age child's arrangements would allow policymakers to make informed policy decisions tailored to each communities' unique characteristics needs.
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- Strategies to better support informal providers (unpaid/paid adults) at the community level would strengthen the capacity of all adults who are caring for school-age children. Community institutions, like public libraries, are well situated to engage and support anyone caring for a school-age child.

Map 1: Percent of School Age Children with Access to a Child Care Slot



Percent of Young Children with Access to a Regulated Slot



Data Information: Access to child care is calculated by taking the number of child care slots (regulated and unregulated) for school age children (6-12 years) as of January 2018 (Estimated Supply of Child Care in Oregon, Oregon Child Care Research Partnership, Oregon State University) and dividing it by the population of children in the community who fall in the age group (2014-2108 ACS 5-year estimate, Table B09001).