
Phase I: Planning Grant

**Evaluating CCDBG in
Oregon: Impact of the
2014 Act on Children,
Families, and Providers**

Report on Pre- Data

*Roberta B. Weber
Deana Grobe
Megan Pratt*

Acknowledgments

This study was funded through grant number HHS-2016-ACF-OPRE-YE-1177 from the Office of Planning Research and Evaluation in the Administration for Children and Families, U.S. Department of Health and Human Services. The contents are solely the responsibility of the authors and do not represent the official views of the funding agency, nor does publication in any way constitute an endorsement by the funding agency. The authors thank members of the Evaluating CCDBG in Oregon Advisory Committee for their insights and review of this report.

Contents

- INTRODUCTION4**
- RESEARCH QUESTIONS6**
- RESEARCH DESIGN AND SAMPLE6**
- PHASE I TIMELINE7**
- DATA SOURCES AND METHODOLOGY8**
- FINDINGS11**
 - CHILD CHARACTERISTICS11
 - FAMILY CHARACTERISTICS13
 - PROVIDER CHARACTERISTICS16
 - Spark Rating*17
 - Training*17
 - Education or Oregon Registry (ORO) Step Level*18
 - STABILITY20
 - Family Spells*20
 - Child Arrangement Spells*21
 - Provider Total Months*22
- CONCLUSIONS & IMPLICATIONS FOR PHASE II STUDY DESIGN24**
- REFERENCES26**

Introduction

The 2014 Child Care and Development Block Grant (CCDBG) Act aims to ensure that children whose care is supported by Child Care and Development Fund (CCDF) programs are in high quality settings that have received inspections and are monitored and that children are in stable arrangements. The 2016 CCDF Rule guides implementation of the 2014 Act. This Act has potentially large impacts on the children, families, and providers that participate in the subsidy system. The implications are likely to be particularly salient for home-based providers¹ and the children and families they serve. Prior to implementation of the 2014 Act, the majority of home-based providers in Oregon have not been inspected or monitored. There has been virtually no support for the quality of care provided by the less formal home-based providers. Oregon is uniquely positioned to study the impact of the 2014 CCDBG Act on children, families, and providers of home-based care given high proportions of children served by home-based providers, new regulations and investments, and the State of Oregon's commitment to families' access to quality home-based care.

Of high policy interest is how implementation of the 2014 CCDBG Act policies, such as 12-month eligibility periods, increased requirements, and additional support for home-based child care providers, affect which children, families, and providers participate in the subsidy program. Research has shown that Oregon's CCDF program has traditionally served parents whose employment schedules constrain their child care choices (Weber & Grobe, 2011). Other research shows that amongst low-income families challenging work schedules and having a child with special needs are associated with use of less formal home-based care, and that having work constraints (e.g., unpredictable and nontraditional work schedules) is negatively associated with use of center and formal family child care (Weber, Grobe, & Scott, 2018). For these families home-based care, including that delivered by friends and neighbors, may be the only option. Parents of infants are another group that often sees home-based child care as best meeting their child's needs. Legislators and Early Learning Council members have expressed a commitment that the CCDF program reach traditionally underserved families such as a) racial/ethnic minorities, b) those whose primary language is not English, and c) children with a special need such as those involved in Child Welfare or in Early Intervention/Early Childhood Special Education. These leaders have expressed a commitment to high-quality home-based care options within the CCDF program to support access for these target populations.

With support from the Office of Planning, Research and Evaluation (OPRE), Oregon is conducting multiple studies to assess the impact of the implementation of the 2014 CCDBG Act. The research project aims to assess how implementation of the Act affects participation in the CCDF program and related quality improvement initiatives. The research is being conducted in two phases and includes multiple studies. This report describes findings from Phase I of the grant, and focuses on findings from an administrative data study of participants in the two years prior to implementation of the 2014 Act. Specifically, this report addresses characteristics of children, parents, and providers, including race/ethnicity, primary language, and level of education of providers and children served by these providers. Participation in Professional Development (PD)/Support and indicators of quality are examined. We also look at stability of subsidy participation and of the care provided for those entering in November 2014 through September 2016. The study relies on analyses created by merging multiple

¹ We use the term home-based to describe both regulated and legally exempt providers of care in a home. The majority of home-based providers are legally exempt but they care for small numbers of children. Prior to implementation, these providers were not monitored.

administrative databases. Findings from the Phase I study provide insight into Oregon’s subsidy program, documenting who participates and the stability of that participation prior to the Act. In addition, these findings have implications for the design of the quasi-experimental pre- post study to be carried out in Phase II of this research project.

Research Questions

The Phase I administrative data study is designed to provide baseline information. That is, it provides a description of participant characteristics that we theorize may be affected by implementation of the 2014 CCDBG Act through the 2016 CCDF Rule. The research questions are:

1. What are the characteristics of children and parents served by the subsidy program in the two years prior to implementation of the 2016 Rule?
 - a. Characteristics of children served (age, race/ethnicity, child welfare involvement, participation in early intervention/ECSE)
 - b. Characteristics of parents served (education, household income, number of children, race/ethnicity, primary language, employment sector, employment stability)
2. What are the characteristics of providers in the child care subsidy program the two years prior to implementation of the 2016 Rule?
3. Stability questions in the two years prior to implementation of 2016 Rule:
 - a. How long does a family participate in the child care subsidy program?
 - b. How stable are the subsidized child care arrangements for children?
 - c. How many total months are providers providing care to subsidy children?

Research Design and Sample

Research Design. The analysis approach is primarily descriptive and exploratory; the study provides critical information on the participation of subsidy children, parents, and home-based providers before the implementation of the 2014 Act. The design uses a time frame that includes two years prior to the change in policies (October 2014 – September 2016) and looks at the characteristics and behaviors of children, parents, and providers' in the pre-implementation environment. The characteristics of children, families, and providers who received subsidies or provided care before the implementation provides a baseline for looking at those who used the program after the implementation (Phase II of the study). Phase II of the study (forthcoming) will provide important information about how different subgroups use child care subsidies and how subgroups are differentially affected by subsidy policies.

Sample. The population of interest included Oregon children and families that entered the child care subsidy program two years prior to implementation of the 2014 CCDBG Act changes (October 2014 to September 2016). Families with at least one child who received a subsidy were included. A subsidy spell was defined as a period of receipt of subsidized child care services (measured in months) which ended when there was a full calendar month in which no child in the family received subsidized care. This reflected months in which subsidized child care services were actually received, not when payment occurred, so that an interruption of even one month indicated a break in the continuity of subsidized child care. There were 15,453 adults (33,505 children) included in the sample sent to the state for matching and attaching additional data from various sources. All providers (8,683) in the CCDF program during the same time period were also included in the analysis.

Phase I Timeline

Phase I (or the Planning Phase) of the Evaluating CCDBG in Oregon Research Project included a study of the subsidy program in the two years prior to implementation of the 2016 CCDF rule. Changes in policy needed to implement the 2016 CCDF rule required legislative action and rule changes within both Early Learning Division (ELD) and Department of Human Services (DHS). Policy changes enacted during the 2014-2016 study period involved 12-month eligibility, 3-month job search, authorized medical leave, self-employment, and authorized student hours². Although these policies were introduced in October 2015 for employment related cases, the impact on families was limited. First, the changes were phased in as employed parents entered the program. Secondly, enrollment of employed parents was affected by activation of the reservation list in October 2014 and in place for 16 of the study's 24 observed months. Reservation list policy was designed to restrict subsidy participation in order to prioritize serving parents with higher needs. During this period, parents who met at least one of five criteria could bypass the reservation list. These five criteria included: 1) Families where any member had received a full or partial month of Temporary Assistance to Needy Families (TANF) in the preceding 3 months. 2) Families where a parent had an open Employment Related Day Care (ERDC) case in one of the preceding 2 months. 3) Families where any member is currently or was eligible for a Temporary Assistance to Domestic Violence Survivors grant in the current or preceding 3 months. 4) A child in the family is found eligible for an opening with a contracted slot for Head Start or an Early Head Start Child Care Partnership program. 5) The family is referred to ERDC by Child Welfare. During months in which the Reservation List was active, only employed families who met one of the five criteria would have been affected by the new 12-month eligibility, 3-month job search, and other policies.

Other changes related to CCDBG Reauthorization were introduced after the two-year period captured in this study. These included:

- Expansion of criminal background checks to include fingerprinting, introduced October 2016;
- Increase in training requirements, introduced in November 2016;
- Health and safety monitoring of legally exempt nonrelatives, began in November 2016;

The overall study design (Phases I and II) treats FFYs 2015 and 2016 (October 2014 through September 2016) as prior to the implementation of the new rule, FFY 2017 (October 2016 through September 2017) as a transition year, and FFYs 2018 and 2019 (October 2017 through September 2019) as post implementation.

² Employed students may have child care hours related to school approved but at least 50% of all authorized hours must be from employment.

Data Sources and Methodology

The analysis relied on linking numerous administrative databases to create several longitudinal datasets to capture participation before implementation of the 2014 Act. The primary source of data was the 801 data from the child care subsidy program, provided by the ELD. Although DHS manages the CCDF subsidy program, data used to manage the subsidy program is regularly exported from the DHS systems to ELD where it is managed and used to complete 801 reports. These data include information on the parents (income, sources of income, marital status, TANF receipt, county) and the child (age, race, gender) as well as the type of care provider (center, family, relative, etc.). The subsidy data was linked with data from several other administrative data sources shown in Figure 1 and described below.

Client Maintenance System (CMS) provided by DHS. CMS contains information on parents and families including parent education level and household size that is not captured in the 801 database.

SNAP Data provided by DHS. Over 90 percent of families that participate in the CCDF program also participate in SNAP.

Child Welfare data from DHS. Research partners have used merges of child welfare and subsidy program data to assess how well the CCDF program has served these children and to compare characteristics of their subsidized care with that of other children (Lipscomb, Lewis, Masyn, & Meloy, 2012; Meloy, Lipscomb, & Baron, 2015). Partners shared child welfare data at the child level, including: number of removals a child has experienced (and date of first and last removal from home), and number of welfare placements.

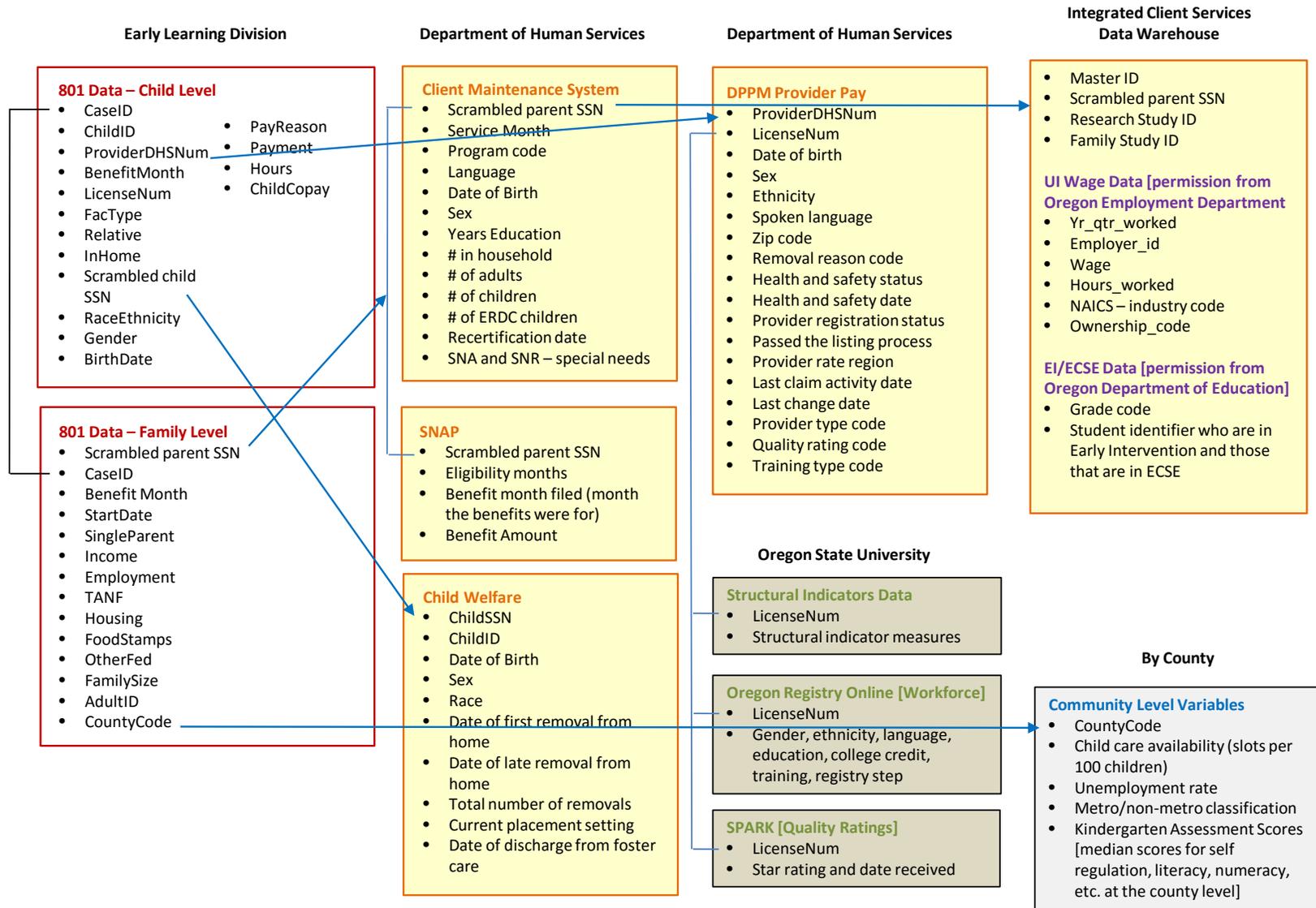
DPPM Provider Pay data from DHS. The Provider Pay system through DHS is used to monitor and pay the subsidy providers. It includes data on their demographic information, license number, removal reason code, relative status, whether they passed the listing process, and other training and quality codes. These data were linked by license number to various other datasets held by OSU that are described below.

Oregon State University (OSU). Through various projects, OSU has access to data on a range of provider data that are linked by license number. Since 2011, Oregon has collected data on structural indicators of quality (e.g., director and teacher education and training, compensation, retention, and accreditation) on all regulated child care facilities. Partners send data to OSU where the facility-level quality measures are created. Analyses completed as part of the State's QRIS Validation Study provided evidence of significant relationships of these measures with observed quality (CLASS) and QRIS (Spark) ratings (Lipscomb, Weber, Green, & Patterson, 2016). Merging the Structural Indicator data provides a measure of quality in this study's analyses. OSU also has access to provider workforce data that includes providers' gender, ethnicity, language, education, college credit, training, and step on the Oregon registry. Information on a providers' star rating from the State quality-rating program are also linked.

Integrated Client Services Data Warehouse (ICS). ICS contains Oregon Employment Department data for all the parents in the sample. These data include UI Wage data information on when parents are employed, the wages they earn, and the hours they are employed. It also captures rich data on the sector in which they are employed. Over years of research using these data, the Partnership has created measures of employment stability and job change (e.g., Grobe, Weber, & Davis, 2008; 2014). Important aspects of the parent's life are captured in UI wage data. ICS also contains early intervention/early

childhood special education (EI/ECSE) data through permission from the Oregon Department of Education. Oregon policy makers are committed to getting every young child screened for developmental disabilities and delays, and if needed, receiving developmentally supportive services. By merging in EI/ECSE data, we know if these children are receiving child care subsidy services.

Figure 1. Diagram of Data Sources and Variables for CCDBG in Oregon Project



Findings

Child Characteristics

There were **29,762³** unique children served in the subsidy program between October 2014 and September 2016. Over half (52.6%) of the children were Caucasian; Hispanic children comprised 20.9% of the sample, and Black children represented 11.6% (Table 1). The sample had slightly more male children (51.8%) who received subsidies during this time period. Sixty-two percent of the primary child care arrangements were in regulated care and 38% in unregulated care. The largest regulated care group was center care (29%), almost 20% in registered family, and 14% in certified family. Exempt nonrelative was the largest unregulated primary care at 21% with the next largest care being in-home nonrelatives at 7%. Only 2% of the children indicated a second provider. For these children with a secondary provider, slightly more were with regulated providers (68% vs 62%); 28% with registered family providers 20% in center care, 19% in certified family.

Almost five percent (4.6%) of children on subsidy also had been served by child welfare during the two-year study period. The majority of these children (80.6%) had experienced only one removal from their home. A little over four percent (4.2%) of children of all ages received either Early Intervention or Early Child Special Education Services (EI/ECSE). Given that we did not know the children's ages, we could not know the number of children under age 6 receiving subsidy, the age group eligible to be served by EI/ECSE. If we knew how many children were under age six, the percentage of children eligible for EI/ECSE who received services would thus be higher than 4.2%.

Table 1. Characteristics of the Children in the First Observed Subsidy Month

	Subsidy Children <i>First Observed Subsidy Month</i> N=29,762
Variable	Mean/ Frequency
Child's ethnicity	
Asian	1.4%
Hispanic	20.9%
Native American or Alaska Native	2.2%
Black or African American	11.6%
White	52.6%
Pacific Islander	0.8%
Unknown	10.5%
Gender	
Male	51.8%
Female	48.2%

³ Although there were 33,000 child ID's we received back data on only 29,762 children. DHS indicated there were some situations when they couldn't match everyone.

Table 1. Continued

Variable	Mean/ Frequency
Type of Provider: Primary	
<i>Regulated Care</i>	62%
Certified Center	28.9%
Certified Family	13.6%
Registered Family	19.7%
<i>Unregulated Care</i>	38%
Exempt Center	0.8%
Exempt Nonrelative	21.0%
Exempt Relative	5.4%
In-home Nonrelative	7.3%
In-home Relative	3.4%
Child received Child Welfare during 2 years	4.6% [n=1524]
Mean number of removals	1.24
1 removals	80.6%
2 removals	15.9%
3 or more removals	3.3%
Early Intervention or Early Childhood Special Education ¹	4.2% [n=1411]

Notes: N=1,411.

Only children aged birth through school entrance were eligible for EI/ECS. Because child age was not in the data, the percentage of EI/ECSE among children 0-12 is reported. Thus, 4.2% under-represents the percentage of eligible children served.

Table 1a. EI/ECSE Services received by eligible children.

	2014-2015 School Year	2015-2016 School Year
Early Intervention	28.8%	34.3%
Early Childhood Special Education	71.2%	65.7%

Note: N=1,411

¹ Each child served has Individualized Family Service Plan (EI, ages 0-3) or Individual Education Plan (ECSE, ages 3-5). Services were provided by the EI/ECSE program directly, but in a small percentage of case by Regional Services.

Family Characteristics

There were **15,453** unique families receiving child care subsidies during the study period. We merged monthly child care subsidy files into a longitudinal analysis file over the two year time period and linked with other administrative data to provide more detailed data on family characteristics, SNAP usage, and parent employment. An analysis of demographic characteristics of participating families allowed us to determine a baseline of families in the program prior to implementation of the 2014 Act.

The description of the demographic characteristics of the families was based on responses in the first month of the family’s first observed subsidy spell. Table 2 shows household size as 3.5, and a mean of more than two (2.17) children in the household, with slightly fewer (1.65) children who received subsidized child care. The mean age of the youngest child in the family at the beginning of the first observed subsidy spell was almost three and a half years old (41 months). The oldest child was, on average, 5.4 years of age (65 months). The vast majority of families were single-parent households (96%) with an average monthly household income of \$1,019. At the first observation month, 78% of parents were eligible due to employment, and 22% were eligible due to participation in training or other job readiness activities (TANF). Almost all (97%) of the families had received SNAP during the study period and 14% lived in a nonmetro county. Eighty-five percent of the parents had a high school education or less, and almost all spoke English (97%).

Table 2. Characteristics of the Families in the First Observed Subsidy Month

Subsidy Families	
<i>First Observed Subsidy Month</i>	
N=15,453	
Variable	Mean/ Frequency
Number in household	3.49
Number of adults in household	1.12
Number of children in household	2.17
Number of children on ERDC	1.65
Age of youngest child (in months)	40.9
Age of oldest child (in months)	65.0
Single parent households	95.6%
Monthly household income	\$1,019
Eligibility group: Job readiness or assessment	21.7%
Eligibility group: Employment-related care	78.3%
SNAP participation	97.0%
Nonmetro	14.4%
Parent’s education level	
No formal schooling	1.3%
1-11 Grade completed	25.2%
12 or GED	58.7%
13-16 years of college	14.5%
Credits toward post graduate deg.	<1%

Table 2. Continued

Variable	Mean/ Frequency
Language spoken by parent	
English	96.6%
Spanish	2.3%
Russian	<1%
Somali	<1%
Vietnamese	<1%
Other	<1%

In capturing employment characteristics of parents, we used UI wage data to create the following variables: a) number of employed quarters (wages greater than zero) out of a maximum of 8 possible quarters, b) quarterly hours worked, job changes (defined as a change in primary employer identification number when comparing previous to current quarter), c) employment loss or gain (defined as losing or gaining employment, or a reduction or gain of hours by 33% when comparing hours from previous to current quarter and from current to next quarter), and d) relative wage losses or gains (33% increase or decrease in wages from previous to current quarter). Although related, job change and employment loss or gain measured different things. For example, a parent could have an employment loss without a job change if their hours with a given employer were substantially reduced or they were laid off and had a period of no employment before returning to that same employer. Similarly, a parent could have a job change without an employment loss if they moved from one employer to another with no (or only a short) break in employment.

Based on the data shown in Table 3, parents were employed, on average, 6 of the 8 quarters (the quarters were not necessarily continuous). On average, parents had earnings in 75% of the project quarters. In addition, parents were working an average of 327 hours per quarter. Considering that a quarter of full time work sums to 520 hours (13 weeks at 40 hours per week), these subsidy parents worked more than half time. Of course, the quarter may have been a mix of full-time work along with periods out of the work force or unemployed. Parents averaged just over one (1.13) job change and employment losses and gains were less than one (between 0.51 and 0.60) from the previous quarter to the next quarter and from current to next quarter. Wages were relatively stable. Working parents had an average of around one wage increase and greater than one wage loss (33% increase or decrease in wages) from one quarter to another over the 8 quarters. These findings create an impression of relatively stable low wage employment, rather than many jumps from jobs or from low to high earnings. Findings also indicate that increased earnings were not likely to make a parent income ineligible.

Table 3. Employment Characteristics of Subsidy Participants: Quarterly Unemployment Insurance Data from October 2014 – September 2016.

	All Subsidy Parents with Employment Data	
	N=14,273	
	<i>Mean</i>	<i>Median</i>
# of employed quarters (8 potential quarters)	6	7
Quarterly hours worked	327	353
# of job changes	1.13	1
# of employment losses from previous quarter	0.60	1
# of employment losses to next quarter	0.51	0
# of employment gains from previous quarter	0.60	1
# of employment gains to next quarter	0.52	0
Relative wage gain [<i>Average number of relative wage gains (33% increase in wages from previous to current quarter) across 2014-2016</i>]	1.08	1.0
Relative wage loss [<i>see Relative wage gain</i>]	1.26	1.0

Notes: There are 8 quarters of observed UI Wage data.

1,180 (8%) of subsidy parents did not have any employment during the study period.

Provider Characteristics

There were **8,683** unique providers who were providing care to children receiving child care subsidies during federal fiscal years 2015 and 2016. For the providers who had license numbers (only regulated providers had license numbers), we were able to match their provider data with a range of data to which OSU had access. These datasets provided data on Spark ratings, teacher education and training, and Oregon registry steps (based on formal education and/or other documented evidence of qualifications). An analysis of these provider characteristics provides a baseline prior to implementation of the 2014 Act.

Table 4 shows the breakdown of providers by type of care, how many of a particular type of provider received a special needs rate through DHS, and the average number of children served. Overall, 28% of providers were regulated in either 2015 and/or 2016 and 72% were unregulated providers. This breakdown differs significantly from reported when looking at the child level (see Table 1). Thus, 62% of children received care from 28% of providers. The largest regulated care group was registered family (14%), with 8% in center care and almost 6% in certified family. Exempt nonrelative was the largest unregulated group at 39%, with the next largest care being in-home nonrelatives at 16%.

For all providers, the average number of subsidy children they served during the study period was 4.71 children. Table 4 shows a breakdown of the average number of children served by regulated and unregulated providers, as well as by type of care. Regulated providers cared for, on average, 10.7 children compared to 2.5 children for unregulated providers. This explains the earlier result where more children were found to be in care with regulated providers, even though there were fewer regulated providers caring for subsidy children.

The Special Needs Rate may be paid a provider for caring for a child, newborn through age 17, with a special need that requires a higher level of care. This rate offers families with children with high levels of need more options for child care services in their area. The majority (89%) of providers who received a special needs rate were in the unregulated group (Table 4). Exempt nonrelative providers were the largest group who received special needs rate (39%). Centers seldom received the special needs rate (<1%).

Table 4. Descriptives by Type of Provider Including Those Who Received a Special Needs Rate

Type of Provider	All Providers (N=8,683)	Average Number of Children Served	Provider Received Special Needs Rate (n=113)
<i>Regulated Providers</i>	28%	10.7	11%
Certified Center	8.1%	17.3	<1%
Certified Family	5.6%	12.3	3%
Registered Family	14.3%	6.4	8%
<i>Unregulated Providers</i>	72%	2.5	89%
Exempt Center	0.6%	8.6	0
Exempt Nonrelative	38.6%	2.6	39%
Exempt Relative	10.6%	1.9	15%
In-home Nonrelative	15.8%	2.4	26%
In-home Relative	6.4%	2.2	9%

Spark Rating

Spark, Oregon’s Quality Rating and Improvement System (QRIS), enables regulated providers to document the level of quality their facility provides. Ratings include a commitment to quality (C2Q) and levels 3, 4, and 5. Approximately 2,413 of the 8,683 providers who participated in the subsidy program over the two years were regulated and thus eligible to participate in Spark. Almost a third (29%) of the 2,413 facilities were participating in Spark. Table 5 shows the rating level of the 765 programs that were participating in Spark. The majority (57%) had committed to quality, but had not been rated.

Table 5. Spark Quality Rating for the Regulated Subsidy Providers

SPARKS Quality Rating	Centers	Certified Family	Registered Family
C2Q	228	119	183
3	61	44	26
4	23	13	2
5	38	19	0
Totals	350 (46%)	195 (25%)	211 (28%)

Note: There were 765 providers whose license number matched with Spark data. One center and eight exempt nonrelative providers had a license number and a Spark rating, but were classified in subsidy data as exempt. Since an unlicensed program cannot participate in Spark, these nine programs are not shown in the table.

Training

Teacher education and training levels are indicators of a child care facility’s quality, that is, the ability of the facility to support the development of the children the program serves. For both training and education, we have measures of teacher quality at the facility level. Due to the inability to match the identification numbers of unregulated providers who participated in the subsidy program with the training data stored in the Oregon Registry (ORO), we were not able to measure the training levels of unregulated providers. We did have access to data on regulated programs.

Data showed the percent of teachers and providers⁴ at regulated facilities that met Spark training standards at different Spark star levels (18 plus hours for star level 3, 20 plus hours for a 4, and 24 plus hours for a 5). We matched the data for the two years of the study. In 2015, we had training level data on 1,779 (78%) of the 2,268 programs regulated that year (see Table 6). Of these programs, training levels varied by type of care with Certified Family homes having teachers/providers with the highest training levels; 74% had 18 or more training hours in 2015. Centers were next; 58% or more had 18 hours or more of training. About a quarter (26%) of Registered Family home providers had 18 hours or more of training. In the majority of cases, registered family providers had a single provider, whereas centers and certified homes could have multiple teachers/providers.

⁴ Data are for Certified Center (CC) teachers and head teachers and for providers for Certified Family (CF) and Registered Family (RF). Although CC and CF have aides or assistants, we used teacher or provider data without including that of aides and assistants as most representative of a facility’s quality.

Table 6. Teacher/Provider Training Hours in Regulated Child Care Facilities in 2015

	Centers N=554	Certified Family N=312	Registered Family N=913
	Mean % (Std. Dev)	Mean % (Std. Dev)	Mean % (Std. Dev)
% teachers/providers at facility with 18+ total training hours	57.6 (32.4)	74.1(43.9)	25.9(43.8)
% teachers/providers at facility with 20+ total training hours	49.9 (33.4)	69.0(46.3)	22.9(42.0)
% teachers/providers at facility with 24+ total training hours	40.3(34.2)	55.9(50.0)	36.1(25.1)

N=1,779 Facilities

In 2016, we had training level data on 1,785 (79%) of the 2,268 regulated programs that year. Similar to 2015, training levels varied by type of care with Certified Family homes having teachers/providers with the highest training levels; 76% had 18 or more training hours in 2015. Centers were next; 61% or more had 18 hours or more of training. About a third (34%) of Registered Family home providers had 18 hours or more of training; a larger percentage than in 2015.

Table 7. Teacher/Provider Training Hours in Regulated Child Care Facilities in 2016

	Centers N=567	Certified Family N= 347	Registered Family N= 871
	Mean % (Std. Dev)	Mean % (Std. Dev)	Mean % (Std. Dev)
% teachers/providers at facility with 18+ total training hours	61.3(33.1)	75.5(43.1)	34.3(47.5)
% teachers/providers at facility with 20+ total training hours	54.1(32.2)	70.9(45.5)	31.0(46.2)
% teachers/providers at facility with 24+ total training hours	40.3(34.2)	55.9(50.0)	36.1(25.1)

N=1,785 facilities

Education or Oregon Registry (ORO) Step Level

Oregon has a system that enables providers to earn from a Step 1 to 12 in a PD registry, using both documented formal education and documented training called ORO. Teachers/providers employed in a regulated facility or a facility participating in the subsidy program, even if not regulated, are assigned a Registry Step. Due to the inability to match the DHS and ORO identification numbers for unregulated providers, we can report step levels only of persons employed in regulated facilities.

As with training, we had data that enabled us to estimate the education level of teacher/providers in regulated facilities. Specifically, we had a measure of the percent of teachers/providers at each facility

that met a Spark level of education as measured by a step in ORO; step 8 or higher for a star rating of 3, step 9 or higher for a 4, step 10 or higher for a 5. A step 8 is equivalent to an ECE certificate, a 9 to an Associates degree in ECE, and a 10 to a Baccalaureate degree in ECE. We matched the data for the two years of the study.

In 2015, we had data on ORO step level for 1,777 (78%) of the 2,268 regulated programs that participated in the subsidy program. Of these programs, step levels varied by type of care with centers having a greater percentage of teachers/providers with the highest step levels than the other program types; 28% had an ORO step 8 or higher in 2015. Certified family homes were next; 22% had an ORO step 8 or higher. Only (4%) of Registered Family home providers had an ORO step 8 or higher.

Table 8. Teacher/Provider ORO Step Levels in Regulated Facilities in 2015

	Centers N=552	Certified Family N=312	Registered Family N=913
	Mean % (Std. Dev)	Mean % (Std. Dev)	Mean % (Std. Dev)
% teachers/providers at facility with 8+ step	27.7(30.0)	22.1(41.6)	4.1(20.0)
% teachers/providers at facility with 9+ step	21.7(26.6)	15.2(35.0)	2.5(15.0)

N=1,777 Facilities

In 2016, we had data on ORO step level for 1,794 (68%) of the 2,268 regulated programs that participated in the subsidy program. Compared to 2015, Centers had a similar percentage of teachers with an ORO 8 step or higher (27%). Just under a third (30%) of Certified Family programs had an ORO step 8 or higher in 2016. Only 5% of Registered Family programs had an ORO step 8 or higher. A slightly larger percentage of Certified Family and Registered Family providers had a step of 8 or higher in 2016 compared to 2015.

Table 9. Teacher/Provider ORO Step Levels in Regulated Facilities in 2016

	Centers N=567	Certified Family N=313	Registered Family N=914
	Mean % (Std. Dev)	Mean % (Std. Dev)	Mean % (Std. Dev)
% teachers/providers at facility with 8+ step	26.7(28.4)	30.0(45.8)	5.4(22.6)
% teachers/providers at facility with 9+ step	20.9(24.8)	20.2(37.6)	3.0(16.2)

N=1,794 facilities

Overall, we found lower levels of training and education levels in registered family providers. Differences between 2015 and 2016 were minimal, suggesting stability. An exception to this was an increase in providers with 8+ steps in Certified Family providers; that percentage grew from 22% (2015) to 30% (2016).

Stability

Family Spells (Time in which at least one child receiving subsidy)

In Phase I we examined the continuity of participation in the subsidy program to allow us to determine a baseline in the program prior to implementation of the 2014 Act. We analyzed the length of family subsidy spells based on their first observed spell during the study period. The results below showed that median family subsidy spells were 4 months long, with 25% of the families experiencing spells of 7 months or more.

Table 10. Length of Family subsidy spells using AFT*

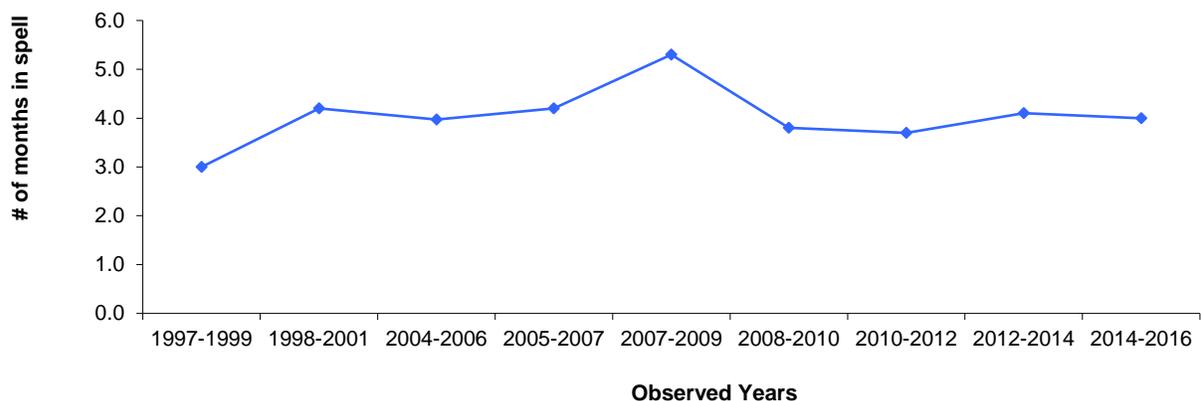
First Observed Subsidy Spell N=10,260	
Median (Std. Dev.)	
25th percentile	2.28 (0.009)
Median	4.04 (0.014)
75th percentile	7.17 (0.027)

*AFT = Accelerated Failure Time model (log normal)

Note: 4,756 parents only had a left-censored spell. About a quarter of families returned for a second spell (23%). The median length of a second spell was 3.07 months.

We compared these results with continuity in the child care subsidy program over time (see Figure 2). We had conducted numerous studies that included measuring subsidy spell duration. Figure 2 shows the duration lengths for the time period included in each of the studies in which durations were measured (1997-1999, Meyer et al., 2002; 1998-2001, Grobe, Weber, & Davis, 2008; 2004-2006 Grobe, unpublished findings; 2005-2007 and 2007-2009, Weber, Grobe, & Davis, 2014; 2008-2010, 2010-2012, 2012-2014 and 2024-2016 analyses were estimated for this study). The results show that there has been little change in measures of continuity over time. Spells have increased from 3 months to 4, and did increase to 5 months after the generous policy changes in 2007, only to move back down to 4 months for 2008-2010 forward.

Figure 2. Continuity in the Child Care Program Over-Time



Multiple factors were likely to affect the length of spells of subsidy participation. Factors that have been shown to predict exits from the subsidy program include:

- *Length of redetermination period* (Davis, Krafft, & Forry, 2017, Grobe et al., 2008; Grobe, Davis, Scott, & Weber, 2017; Meyer et al., 2002; Pilarz, Claessens, & Gelatt, J., 2016; Weber et al., 2014; Witte & Queralt, 2005)
- *Employment change and employment loss* (Grobe et al., 2017; Ha & Meyer, 2010; Weber et al., 2014)
- *Eligibility due to participation in TANF versus employment* (Grobe et al, 2008, Ha, Magnuson, & Ybarra, 2012; Holod, Johnson, Martin, Gardner, & Brooks-Gunn, 2009; Meyer et al, 2002; Schexnayder & Schroeder, 2008; Witte & Queralt, 2005)
- *Caseworker discretion in setting redetermination date* (Madill, Orfali, & Blasberg, 2017)
- *Generosity of policies—a combination of payment rates and copay schedule* (Grobe et al., 2008; Ha & Meyer 2010; Michalopoulos, 2010; Schexnayder & Schroeder, 2008; Weber et al., 2014; Witte & Queralt, 2005).

Use of a reservation list may have also affected participation spell lengths. The reservation list was activated in November 2014 and was in place for 17 of the 24 observed months (71% of the study period). Reservation list policy was designed to restrict subsidy participation using five criteria that prioritized parents with higher needs. Parents who meet at least one of the following bypassed the reservation list: 1) Families where any member had received a full or partial month of TANF in the preceding 3 months, 2) Families where a parent had an open ERDC case in one of the preceding 2 months, 3) Families where any member is currently or was eligible for a Temporary Assistance to Domestic Violence Survivors grant in the current or preceding 3 months, 4) A child in the family is found eligible for an opening with a contracted slot for Head Start or an Early Head Start Child Care Partnership, 5) The family is referred to ERDC by Child Welfare. Restricting participation to those who met the five criteria for the majority of months may have affected characteristics of participating families; characteristics associated with subsidy stability. The priority populations, such as recent TANF leavers, were likely to be eligible due to training, other work support activity, or being a relatively new entrant into employment. These characteristics have been found associated with shorter subsidy spell length.

Child Arrangement Spells

The short spells of subsidy use typical for many families raised concerns that child care arrangements may also be of short duration. Arrangement durations were a direct measure of the time a child was with a specific provider. A child having a stable relationship with a caregiver is essential to supporting development. We were especially concerned about the stability of arrangements for two special needs group: children engaged in Child Welfare and those in Early Intervention/Early Childhood Special Education. We found that subsidized care arrangements with children's primary provider were shorter, on average, than the child's subsidy spells (see Table 11). Compared with 4-month subsidy spells, half of all subsidized arrangements in Oregon had ended within 3 months for children observed for the two-year study period. 39% of children had a second arrangement. In the case of the 39% of all children with second observed arrangement, 74% were with the same provider. These results are consistent with findings from Weber (2005) who also used Oregon administrative data. Weber also found that half of all subsidized arrangements ended within 3 months for children observed for up to 3 years. We saw

only slight differences in arrangement spell lengths of children in Child Welfare or Early Intervention/Early Childhood Special Education.

Table 11. Length of Primary Provider Child Arrangement Spells using AFT*

	First Observed Arrangement		
	All Children N= 22,088	Child Welfare n=1,357	Early Intervention/ Early Childhood Special Education n=1,265
	Median (St. Dev.)	Median (St.Dev)	Median (St. Dev)
25 th percentile	1.85 (0.005)	1.66 (0.02)	1.90 (0.02)
50 th percentile =Median	3.30(0.008)	2.94 (0.03)	3.30 (0.04)
75 th percentile	5.91 (0.016)	5.28 (0.06)	6.01 (0.07)

*AFT = Accelerated Failure Time model (log normal)

Provider Total Months

The stability of provider participation in the subsidy program is an important policy consideration. We used the administrative data to look at the total number of *non-continuous* months providers provided care over the two-year study period (October 2014 – September 2016). We found that for all providers, the average total months they provided care during the study period was **11** months. When comparing the total number of months (non-continuous) provided to subsidy children, we found that regulated providers averaged **15** months of care and unregulated providers averaged **9** months. The table below separates out average months of providing care by the different types of care. Certified centers, certified family, and exempt nonrelative providers were the most stable participants in the subsidy program. It is important to consider that a provider’s time in the program depends on a subsidy parent’s selection of them to care for their child. This measure captures time providing care in the subsidy program rather than time providing care.

Table 12. Average Total Months a Provider Provided Care by Type of Care

	Average Months (Std. Dev.)
<i>Regulated Care</i>	<i>15.49 (8.15)</i>
Certified Center	16.0 (7.9)
Certified Family	16.3 (8.1)
Registered Family	6.4 (6.8)
<i>Unregulated Care</i>	<i>9.10 (7.23)</i>
Exempt Center	10.1 (6.8)
Exempt Nonrelative	14.9 (8.3)
Exempt Relative	8.9 (7.2)
In-home Nonrelative	10.3 (7.3)
In-home Relative	8.3 (7.0)

Conclusions & Implications for Phase II Study Design

The Phase I administrative data study aims to serve multiple goals. First, it aims to describe participants in Oregon's child care subsidy program in the two years prior to implementation of the 2014 CCDBG Reauthorization Act. A key characteristic measured is the stability of: a) families' participation in the programs, b) the child care arrangements which the program subsidized, and c) providers' participation in the program. Secondly, the study aims to inform the design of the Phase II study design. Lessons learned from conducting the Phase I study and from the findings themselves have important implications for the design of the Phase II pre-post study.

One of the major findings of the Phase I study is the limited durations of families' subsidy participation, not only in the two years prior to implementation of the Reauthorization Act, but going back to 1997. In those almost 20 years the longest median spell of family participation in the subsidy program was for a short period after the increase in subsidy generosity by the 2007 Oregon Legislature. At that time median spells were 5 months. In the two-years prior to implementation of the new Act, median spells were 4 months. We find that subsidized arrangements are even shorter. Both a 2005 study (Weber) and the current study find that the median spell length for a subsidized arrangement is 3 months. In 2010, Oregon attempted to increase continuity in the subsidy program by aligning subsidy eligibility periods with the 12-month periods found in the SNAP program, but that policy change does not appear to have increased spell lengths as expected. A major implication of study findings is a reminder that the length of eligibility periods is not the only policy contributing to the length of subsidy participation spells or of subsidized arrangements. Thus, it may be important for Phase II study design to include additional policy levers beyond those directly changed by the 2016 Reauthorization.

In prior research, length of subsidy durations have been found to be shorter for TANF recipients (Grobe et al, 2008, Ha, Magnuson, & Ybarra, 2012; Holod, Johnson, Martin, Gardner, & Brooks-Gunn, 2009; Meyer et al., 2002; Schexnayder & Schroeder, 2008; Witte & Queralt, 2005). Researchers theorize that this may be due in part to shorter employment histories and other indicators of low human capital common among TANF receiving families. Oregon's reservation list priorities may well bring parents with low human capital into the subsidy program. We find the reservation list in place in 17 of the 24 observed months. Existing data do not capture prior TANF experience, an important descriptor of subsidy participants. It will be important to determine if a prior TANF experience variable can be added to the 2014-2016 data, as well as included in future data sets needed for Phase II.

Another important finding is that, although 72% of providers participating in the subsidy program in the 2 years prior to implementation are unregulated, 62% of children receive their subsidized care from regulated providers. Thus, 62% of children received care from the 28% of providers who are regulated. We have little data on the quality of the unregulated providers. Although training and education data on unregulated providers are collected and stored in the Oregon Registry Online (ORO) database, the lack of a shared identifier means that we are not able to describe the qualifications and training of these providers. An implication for the Phase II study is the importance of finding a solution to the lack of a shared identifier across the full study period.

Populations with challenges to success are a high priority of Oregon policy makers. It is important to be able to measure participation in the subsidy program of children involved in Child Welfare and Early Intervention/Early Childhood Special Education (EI/ECSE). We find that in the two years prior to

implementation about five percent of children participated in one or the other of these programs. In the case of EI/ECSE, that statistic is hard to interpret, as only children prior to school entry are eligible for those services. Yet, since we do not have children's birth date in our dataset, we are not able to identify the number of children who meet the age eligibility for EI/ECSE. It will be important to determine if child date of birth can be merged into the 2014-2016 data, as well as being included in the data for the period after the Rule implementation.

Families' participation in SNAP in months in which the parent does not participate in the subsidy program adds insight into subsidy participation. Although the administrative dataset used in this study includes data on SNAP participation in the months when the family is receiving subsidy, it does not indicate a family's SNAP participation during non-subsidy-receiving months. Thus, it would be beneficial to have SNAP participation data on each observed month of the study period. That would be important for this study, and for the period after the Rule implementation.

The proposed goal for the Phase II study is to determine the extent to which the policy changes associated with implementation of the 2016 CCDF Rule affect who the program serves. The Phase II study will compare characteristics of served children, families, and providers (including measures of continuity and stability) during the pre- and post- implementation phases. Phase II study research questions address:

- Key characteristics of children, parents, and providers to examine the extent to which they are associated with implementation of the new rule:
 - Children served (age, race/ethnicity, special needs, child welfare status, tribal status),
 - Parents served (education, household income, number of children, race/ethnicity, primary language, employment sector, employment stability),
 - Providers (type of care, Spark rating, Structural Indicators of Quality characteristics, number of children served per year).
- Measures of continuity of:
 - Family-level subsidy participation,
 - Child level subsidized arrangements,
 - Provider level spells of subsidy participation (any child or specific child).
- Characteristics of communities that may be associated with characteristics of those served or the stability of services.

The findings from the Phase I study, focusing on the two-years prior to implementation of the 2014 CCDBG Reauthorization, will inform the work of the research team as they review the post-implementation study design. Issues to be addressed include:

- Careful documentation of major subsidy policies and relevant dates so as to be able to consider what measures of policy need to be included in the study.
- Incorporation of the above measures of policies not altered by the 2014 CCDBG Reauthorization Act (such as reservation list policy) into the study design. It may be important to capture how policies are associated with participation and continuity.
- Consideration of a change in years included in the study in order to incorporate more observations and capture the transition period. This may be important in understanding associations of additional policy levers. For example, consider a design that uses 5 or more years of data, e.g., FFYs 2013-2019.
- Consideration of an alternative to pre-post quasi-experimental design.

As noted in the original study proposal, variables capturing the larger economic context will be included in any design given that the goal is to identify the impact of the 2014 CCDBG Reauthorization Act.

References

- Davis, E. E., Krafft, C., & Forry, N. (2017). "The Role of Policy and Practice in Short Spells of Child Care Subsidy Participation." *Journal of Public Administration Research and Theory* 27 (1): 1–19. doi:10.1093/jopart/muw039
- Grobe, D., Weber, R.B., & Davis, E.E. (2008). Why do they leave? Child care subsidy use in Oregon. *Journal of Family and Economic Issues*, 29 (1), 110-127. DOI 10.1007/s10834-007-9094-3
- Grobe, D., Davis, E. E., Scott, E. K., & Weber, R. B. (2017). Using policy-relevant administrative data in mixed methods: A study of employment instability and parents' use of child care subsidies. *Journal of Family and Economic Issues* 38 (1): 146–162. DOI 10.1007/s10834-016-9501-8
- Ha, Y., Magnuson, K., & Ybarra, M. (2012). Patterns of child care subsidy receipt and the stability of child care. *Children and Youth Services Review*, 34, 1834-1844. doi:10.1016/j.childyouth.2012.05.016
- Ha, Y., & Meyer, D. R. (2010). Child care subsidy patterns: Are exits related to economic setbacks or economic successes? *Children and Youth Services Review*, 32, 346-355. doi:10.1016/j.childyouth.2009.10.004
- Holod, A., Johnson, A. D., Martin, A., Gardner, M., & Brooks-Gunn, J. (2012). Contracts, vouchers, and child care subsidy stability: A preliminary look at associations between subsidy payment mechanism and stability of subsidy receipt. *Child Care Youth Forum*, 41, 343-356. DOI 10.1007/s10566-011-9160-8
- Lipscomb, S. T., Lewis, K. M., Masyn, K. E., & Meloy, M. E. (2012). Child care assistance for families involved in the child welfare system: predicting child care subsidy use and stability. *Children and Youth Services Review*, 34, 2454-2463. doi.org/10.1016/j.childyouth.2012.09.015
- Lipscomb, S. T., Weber, R. B., Green, B. L., & Patterson, L. B. (2016). *Oregon's Quality Rating Improvement System (QRIS) validation study one: Associations with observed program quality*. Retrieved from <https://health.oregonstate.edu/sites/health.oregonstate.edu/files/early-learners/pdf/research/qris-study-1-report-no-appendices.pdf>
- Madil, R., Orfali, N., & Blasberg, A. (2017). *Shifting child care subsidy administration to a private, centralized system: Implications for child care stability in Maryland*. Washington DC: Child Trends. Retrieved from <https://www.childtrends.org/wp-content/uploads/2017/09/2017-39MdSubsidyAdmin.pdf>
- Meloy, B., Lipscomb, S. T., & Baron, M. (2015). Linking state child care and child welfare policies and populations: implications for children, families, and policymakers. *Children and Youth Services Review*, 57, 30-39. doi.org/10.1016/j.childyouth.2015.07.008
- Meyers, M.K., Peck, L., Davis, E.E., Collins, A., Kreader, J.L., Georges, A., Weber, R., Schexnayder, D.T., Schroeder, D.G., & Olson, J.A. (2002, July). The dynamics of child care subsidy use: A collaborative study of five states. Report. New York: Columbia University, Mailman School of Public Health, National Center for Children in Poverty.

- Michalopoulos, Charles (2010). Effects of reducing child care subsidy copayments in Washington State, OPRE 2011-2, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Pilarz, A. Ros; Claessens, A., & Gelatt, J..(2016). Patterns of child care subsidy use and stability of subsidized care arrangements: Evidence from Illinois and New York." *Children and Youth Services Review* 65:231–43. doi.org/10.1016/j.childyouth.2016.04.011
- Schexnayder, D. & Schroeder, D. (2008). Child care devolution in Texas: The Relationship of Child Care Policies to Subsidy, Employment and Market Durations. Final Technical Report. Austin, TX: University of Texas, Ray Marshall Center for the Study of Human Resources.
- Weber, R. B. (2005). Measurement of child care arrangement stability: A review and case study using Oregon child care subsidy data. Unpublished doctoral dissertation. Corvallis: Oregon State University.
- Weber, R. B., & Grobe, D. (2011). Oregon subsidy policy impact research project: Parent survey. Corvallis: Oregon Child Care Research Partnership. Retrieved from <http://health.oregonstate.edu/sites/default/files/sbhs/pdf/oregon-subsidy-policy-impact-research-project-parent-survey-report-8-22-2011-revised.pdf>
- Weber, R. B., Grobe, D., & Davis, E. E. (2014). "Does policy matter? The effect of increasing child care subsidy policy generosity on program outcomes." *Children and Youth Services Review* 44:135–144. doi.org/10.1016/j.childyouth.2014.06.010
- Weber, B., Grobe, D., Scott, E. K. (2018). Predictors of Low-Income Parent Child Care Selections. *Children and Youth Services Review*. doi.org/10.1016/j.childyouth.2018.04.001
- Witte, A.D., & Queralt, M. (2005). An examination of the duration of child care subsidies in Rhode Island: Impacts of policy changes and cross state comparisons. Wellesley, MA: Wellesley College, Department of Economics.

For information about this report, contact:

Oregon Child Care Research Partnership
OSU Family Policy Program
231 Hallie Ford Center
Corvallis, Oregon 97331-6406
Telephone: (541) 737-9243
Email: Megan.Pratt@oregonstate.edu