

Evaluating the Eligibility Redetermination Period Extension in Illinois: Preliminary Report

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Executive Summary

The Child Care and Development Block Grant (CCDBG) evaluation in Illinois aims to inform the Illinois Department of Human Services (IDHS) efforts to better serve the needs of low-income children and families through the Child Care and Development Fund (CCDF) program. Illinois is implementing several policy changes in response to the 2014 CCDBG reauthorization in an effort to improve access to high-quality childcare for low-income families. Three key policy changes are of substantive importance for Illinois and are the focus of the overall evaluation: (1) extending the eligibility redetermination period to 12 months; and (2) implementing health and safety training for license-exempt CCDF care providers; and (3) monitoring for license-exempt providers.

This report presents preliminary findings for the analysis of the eligibility redetermination period extension from six months to 12 months; the first of three studies IDHS is conducting under this grant. Final results for the eligibility period extension analysis as well as findings for other two policy change studies will be addressed in subsequent years. The contents of the preliminary report are summarized below.

Research aim. The redetermination analysis examines how elongating the subsidy eligibility redetermination period may impact participants (parents, children, and providers) and program administration. Specifically, we examine research questions relating to parental employment and earnings; continuity of care and provider type; budgetary impact; and implications for the supply of subsidized care.

Analytic strategy. To evaluate how the extension of the redetermination period to 12 months will affect key outcomes for parents, children, and the CCDF program we exploit a natural experiment, resulting from a data system change in 2014, which altered recertification periods for specific cohorts of program recipients.

Data. This study uses IDHS child care assistance program payment records developed into a longitudinal database (CCALD) designed for research purposes. Initial data work identified two issues with implications for the evaluation: the lack of specific date information for eligibility periods and poor data quality for child race/ethnicity. The research team, in collaboration with the IDHS staff who manage the CCMS system, are actively pursuing solutions to address the identified data limitations.

Preliminary findings. We examine preliminary study cohorts: a treatment cohort of cases that will come up for redetermination during the period when altered recertification periods, of 12 months or longer, were administered and a comparison cohort of cases exactly one year prior.

- The primary test of the study cohorts is to compare the length of child care subsidy participation. We find clear evidence of longer spells of child care receipt in the treatment group. The comparison group has, on average, double the proportion of cases that end at exactly six months compared to treatment group. The treatment cohort has higher proportions of cases lasting longer than 12 months.
- We examine spell length by provider type (center-based, home-based, and informal) and find similar results. In all provider types, the comparison group has higher proportions of case spells that end at around six months, and the treatment group has more cases lasting 12 months or longer.
- Despite the difference in length of child care subsidy receipt, the average number of providers a child experiences per spell is consistent between the treatment and comparison groups, approximately 1.4 providers per spell. Suggesting that children in the treatment group had longer tenure with specific providers.

Next steps. The first next step is to obtain additional eligibility date fields and use that data to identify the final study cohorts. Once the cohorts are finalized we will execute a series of linkages with the study population to other sources of administrative data necessary to examine outcomes of interest including parental employment. We will conclude the evaluation of the extended eligibility period with an analysis of potential implications on the budget and supply of subsidized care. We will also begin work on the two remaining CCDBG evaluation studies focused on the new health and safety training requirement for license-exempt CCDF care providers; and monitoring for license-exempt providers.

Introduction

This report presents preliminary findings for the analysis of the eligibility redetermination period extension from six months to 12 months in Illinois. We describe the integrated database of child subsidy payment records that serves as the primary data source for the study and discuss the strengths and limitations of the data. Developing the child care longitudinal database (CCALD) database was a primary activity of the first grant year. We present analyses that identify the study sample, which draw from a data system change in 2014 that resulted in a natural experiment of certain cases receiving automatic extensions to 12 or more months, providing an opportunity to test the effects of an extended eligibility period. We examine descriptive statistics for the study sample. The report ends with a discussion of next steps for the analyses in the next grant year.

Overview

The Child Care and Development Block Grant (CCDBG) evaluation in Illinois aims to inform IDHS (Illinois Department of Human Services) efforts to better serve the needs of low-income children and families through the CCDF (Child Care and Development Fund) program. Illinois is implementing several policy changes in response to the 2014 CCDBG reauthorization in an effort to improve access to high-quality childcare for low-income families. The evaluation is focused on understanding the impacts these policy changes will have on parents, children, and the childcare workforce participating in CCAP (Child Care Assistance Program) in Illinois.

Three key policy changes are of substantive importance for Illinois and are the focus of the overall evaluation: (1) extending the eligibility redetermination period to 12 months; and (2) implementing health and safety training for license-exempt CCDF care providers; and (3) monitoring for license-exempt providers. All three of these changes have the potential to impact both the quality and stability of child care in Illinois. In the planned evaluation each policy change will be examined with specific research questions, analysis strategies, and data sources needed to address those questions.

This report is focused on the study of policy change (1) extending the eligibility redetermination period from six months to 12 months; the first of three studies IDHS is conducting under this grant. The other two studies will be addressed in subsequent years.

Twelve-Month Redetermination Evaluation

The redetermination analysis examines how elongating the subsidy eligibility redetermination period may impact participants (parents, children, and providers) and program administration. Specific research questions can be broken into four categories of inquiry:

Parental employment

- What are the effects of extending the redetermination period from six months to 12 months on the probability of parental employment, on the duration of parental employment, and on parental earnings?

Continuity of care and provider type

- Do increased redetermination periods result in a decrease in the number of different providers used by children/families within a 12 month period? Are participating children exposed to a consistent care provider for longer durations within the 12 months after initiating use of CCDF-subsidized providers?
- Do increased redetermination periods result in increased use of subsidized center-based and/or licensed home-based childcare relative to other forms of subsidized informal (or license-exempt) care?

Differential effects on subpopulations

- Do the effects of extended redetermination periods on parental employment, continuity of care, and provider type vary across specific sub-populations of participants?
- Possible subpopulations to consider include racial/ethnic groups; children from families receiving cash assistance; rural and urban families; children receiving different types of child care at their last redetermination; and children's ages at first exposure to the program.

Budget and supply of subsidized care

- What is the budgetary impact of the policy change to the 12-month determination?
- Does that policy change impact access of subsidized care and create waiting lists?

A literature review, conducted as part of the Phase I Planning Grant, shows that eligibility policies for subsidy receipt have the potential for broad impact on the stability of child care arrangements. There is evidence that extending the redetermination period from 6 months to 12 months may lead to improved care stability, longer periods of subsidy receipt, and may also support parental employment. However, there are key gaps in the existing evidence base, specifically further research is needed to determine the effects of eligibility redetermination period changes on: parental employment status; utilization rates of different types of subsidized care (e.g. center-based, licensed home-based, informal); expected effects on specific recipient subgroups; and implications for program budgets and administration. The complete literature review is included in the Appendix.

Analytic Strategy

To evaluate how the extension of the redetermination period to 12 months will affect key outcomes for parents, children, and the CCDF program we exploit a natural experiment that altered recertification periods for specific cohorts of program recipients. In January 2014, IDHS began using a new electronic document management computer system to support the Child Care Assistance Program. The new Child Care Management System (CCMS) was implemented with the aim of being used by Child Care Resources and Referral (CCR&R) agencies and Site Administered agencies throughout the state to improve the accuracy and timeliness of eligibility determinations, notification of approvals, denials, request for additional information and cancellations. However, phasing out the old eligibility system, and adopting the new one, involved significant challenges leading to technical difficulties to reassess eligibility six months after the implementation of the new system in 2014. Those difficulties to assess eligibility resulted in cases being approved for an additional 6 months without collection of new recertification information resulting in 12 months of assistance for a substantial subset of CCAP participants.

Participants affected by the delay were selected by virtue of when their recertification became due. Table 1 presents the timeline of extended cases. In March of 2014, all cases in Illinois that came due for redetermination in January, February, and March were automatically extended an additional six months without the parent(s) needing to submit employment verification or other information. For the remainder of 2014, a subset of cases in specific service district areas (SDAs) also received the extensions. The additional extensions for cases coming due for recertification in April through December were executed in September and October 2014.

Table 1. Automatic case extensions by case end month

Eligibility Ending Month	Date Extension Completed	Cases Successfully Extended	Service District Areas (SDA) Extended
1/31/2014	3/16/2014	11,448	All
2/28/2014	3/16/2014	15,145	All
3/31/2014	3/16/2014	14,100	All
6/30/2014	9/14/2014	7,593	SDA: 1,2, 3, 5, 6, 8, 15
7/31/2014	9/14/2014	7,553	SDA: 1,2, 3, 5, 6, 8, 15
7/31/2014	9/28/2014	4,974	SDA: 1,2, 3, 5, 6, 8, 15
8/31/2014	9/14/2014	8,367	SDA: 1,2, 3, 5, 6, 8, 15
8/31/2014	9/28/2014	7,653	SDA: 1,2, 3, 5, 6, 7, 8, 10, 15
9/30/2014	9/14/2014	8,107	SDA: 1,2, 3, 5, 6, 8, 15
9/30/2014	9/28/2014	7,017	SDA: 1,2, 3, 5, 6, 7, 8, 10, 15
10/31/2014	10/5/2014	10,681	SDA: 1,2, 3, 5, 6, 7, 8, 10, 15
11/30/2014	10/5/2014	11,911	SDA: 1,2, 3, 5, 6, 7, 8, 10, 15
12/31/2014	10/5/2014	16,850	SDA: 1,2, 3, 5, 6, 7, 8, 10, 15

Transitioning to the CCMS system resulted in a natural experiment that effectively “randomized” a cohort of CCAP participants into an unexpectedly long recertification period of 12 months. This event allows for a comparison of the outcomes of interest among CCAP participants in 2014 who were subject to the de-facto 12 month redetermination period, with outcomes of applicants from previous cohorts whose redetermination eligibility spells were not affected by the change in the electronic management system. The event of the introduction of the CCMS data management system effectively randomized some CCDF participants to a 12-month eligibility period, creating a unique opportunity to simulate conditions of a randomized control trial.

We begin by identifying treatment and comparison cohorts in the administrative data and reporting descriptive statistics on cohort characteristics and spells of child care subsidy participation. These descriptive results are the focus of this report. In the forthcoming final analysis, estimation of the effects of the extended eligibility period will be computed by comparison of the outcomes for parents and children across the extended eligibility dimension. We will estimate effects of a longer redetermination period with regression discontinuity estimators. The richness of the available data allows for controlling differences in observable characteristics across cohorts to render cohorts observationally identical.

Data

Building CCALD

The first step of the analysis was to build the child care longitudinal database (CCALD). The major activity of the past year has been to do finalize the database design of CCALD and complete final processing of the child care subsidy payment data. IDHS regularly produces this payment data that is primarily built from payment records, which is not structured ideally for broader analytic purposes. Designing and building a longitudinal database suitable for research purposes from administrative data files is a time and effort intensive process. It requires significant communication with the administrative data provider to accurately understand what hundreds of data fields and codes represent (and the quality of those fields) in order to correctly apply the data to the research questions. Of particular importance in developing longitudinal databases is ensuring that the fields are accurately represented over time which requires the database to address policy and practice changes in data collection and coding as well as changes in data management systems that require extensive work to ensure the database accommodates changes in field names and data collection strategies across the systems. In the case of the CCALD database, IL experienced a significant system change in 2014 that needed to be carefully addressed.

The entity relationship diagram (ERD) for CCALD is included in the Appendix. The ERD displays the structure of CCALD and shows the relationships between tables containing information on child care subsidy cases, children, head of households (e.g., parent), case employment, providers, payments, and addresses.

Identified Data Issues

Preliminary data work has revealed two issues with the administrative data that have implications for the evaluation analyses. The first is a lack of specific date information for eligibility periods (i.e., months that a family was eligible to receive subsidized child care). The second is poor data quality on the child race/ethnicity fields. Both of these issues are currently under investigation by the analysis team in collaboration with the IDHS staff who manage the CCMS system.

The CCALD database currently contains information on child care subsidy receipt (children and parents) and service provision (providers) based on data files for the payments that IDHS makes to providers for specific eligible children. In these data we can observe when qualified children and families received subsidized child care and from which providers. The payment data do not indicate when a particular family or child became eligible for care services. For example, a family could become eligible for six months of child care but only receive services for four of those six months. Without the eligibility period data we cannot confirm which additional months the

family might have been eligible for care but did not receive it or whether they became ineligible due to change in circumstances. Having the eligibility data alongside the payment data will allow us understand take-up of child care among eligible families and whether take-up was influenced by the 2014 auto-extensions. Of particular relevance for the redetermination evaluation, we need the eligibility start and end dates to precisely identify the specific cases that received the 2014 auto-extensions. Without this information we can make estimations based on the start and end dates of spells of care receipt but it would be preferable to make the treatment and comparison cohort identification with greater precision. We are currently in active negotiations with the IDHS to design a supplemental data extract containing the eligibility date fields which will then be integrated into CCALD. We anticipate receiving the new data extract in the first quarter of grant year two.

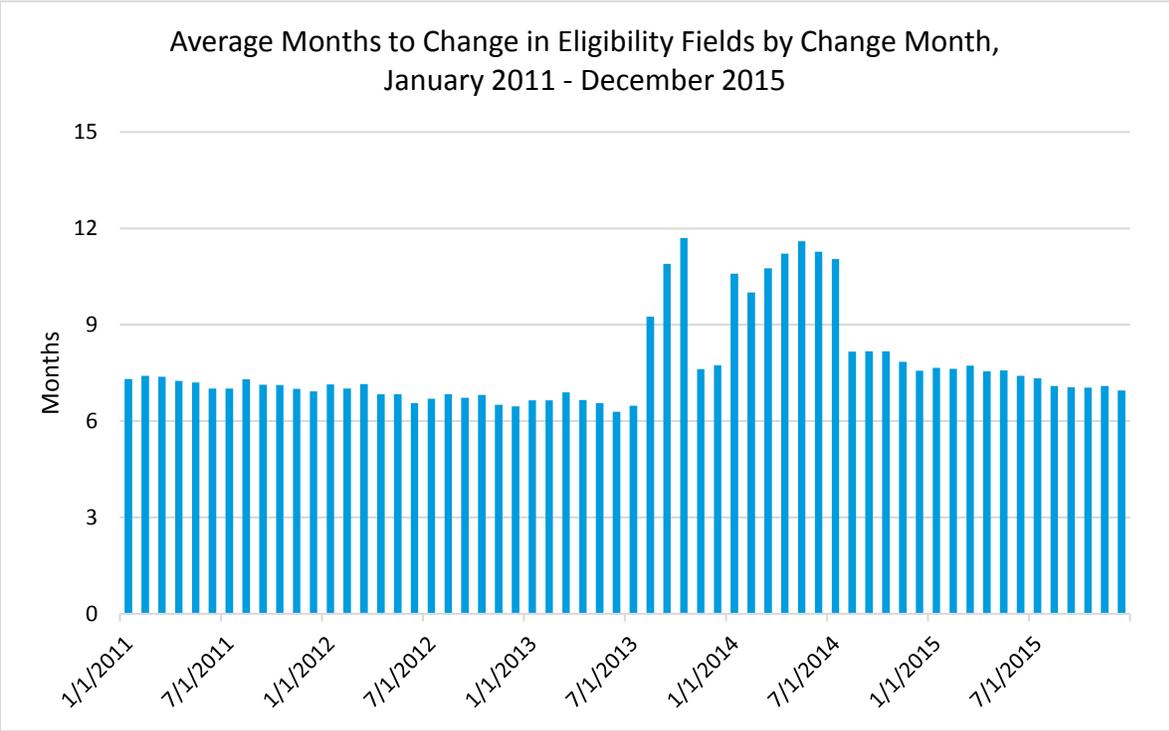
The second relevant data issue is the poor quality of the child race/ethnicity information. There was a change in how race data was collected before and after the implementation of CCMS in 2014. In our preliminary work examining these fields, the documentation for the race and ethnicity codes before and after 2014 do not align with the expected proportions in the state. Of greater importance, the proportion of children with missing data (i.e., no information) on race/ethnicity increased from less than 10 percent in 2010 to about 50 percent by 2015. The level of missing data presents a significant limitation. To address this limitation we plan to use population race/ethnicity information at the census tract level from American Community Survey (ACS) public use data as a proxy for individual child race/ethnicity. The ACS data can be linked to the child care subsidy data via household address.

Over the course of the past year we have developed a close working relationship with the IDHS staff who manage the CCMS data system and are well-positioned to address other data questions that arise as the evaluation progresses.

Preliminary Findings

Using the newly built CCALD database we conducted initial analyses to identify and describe the evaluation cohorts. We began by looking in the administrative records for extended case lengths around the times that the auto-extensions were administered by IDHS. We find clear evidence in the administrative data that the auto-extensions occurred at the reported intervals. Figure 1 shows the average number of months that cases went without changes to the eligibility information (e.g., employment status, household income, and family size), which is typically updated during the redetermination process. During the 2014 auto-extensions all affected cases were extended without any changes to the eligibility information. From January 2011 through July 2013, cases beginning in those months averaged between six and seven months until a change in eligibility information. Cases beginning in August, September, and October, which would have been up for redetermination in early 2014 when the auto-extensions initiated, average nine to 12 months before such changes. Case spells initiating later in 2014 also follow patterns consistent with the IDHS auto-extensions timeline presented in Table 1.

Figure 1. Case length in months without changes to eligibility information



Note: Eligibility fields are those fields that would be updated at the time of care redetermination. They include: employment income; child support income received; child support paid; TANF assistance income; other assistance income; self-employment income; child care reason; family size; and number of parents.

Study Cohorts

In the data currently available we examine a treatment cohort comprised of cases with spells of child care beginning August 2013 through July 2014, as these cases will come up for redetermination during the timeframe the auto-extensions were administered. We create a comparison cohort of cases with spells beginning in August 2012 through July 2013, as these cases should not be affected by the auto-extensions at their first observed redetermination.

Descriptive statistics suggest the treatment and comparison cohorts are similar for child age. In both groups the majority of children are aged birth to five, with over 15 percent of children one year old or younger (Appendix Figure 4). As noted in the Data section of this report, individual level data on child race/ethnicity is not used due to poor data quality. Future analyses will incorporate race/ethnicity and other characteristics from community level data as well as additional information about the cases such as the number of parents listed on the case, and family participation in other public assistance programs.

Continuity of Care

The primary test of the treatment and comparison cohorts is to compare the length of child care subsidy participation. We calculate the number of continuous months children in the cohorts receive child care services, we refer to this measure as a child care “spell”. The continuity of spells is based on consecutive service months by default, but it can also be defined to bridge brief periods of inactivity to smooth out churn. If we allow a service gap of one month, then one month of inactivity will not break the spell if the child resumes child care service the following month. For example, if a case received child care services in September 2013, no services in October 2013, but received services again in November 2013, we would count this as a continued spell without a break. In this analysis we bridge one-month gaps. Future work will test the sensitivity of the results to adjustments of the churn parameter.

Figure 2 presents a histogram of spell length for both groups. The comparison group has higher proportions of case spells that are shorter than 12 months with a particular spike at six months when typical eligibility determinations occurred in 2014. On average, the comparison group has double the proportion of cases that end at exactly six months compared to treatment group (about 6 percent versus 13 percent). The treatment cohort has more cases longer than 12 months with spell breaks clustering at subsequent six month intervals (18 months, 24 months, and 30 months). We also assess spell length using a survival modeling strategy. Figure 3 displays the survival curves for child care spell length among treatment and comparison cohorts. We find overall longer spells for the treatment group with the most dramatic difference occurring around six months when the comparison group experiences a noticeable drop.

As an additional test, we assess the proportion of child care spells that end at exactly six months, by the month the spell began (see Appendix Figure 5). The comparison group has consistently higher proportions of cases ending at exactly six months (between 12 and 16 percent) relative to the treatment group (between 4 and 11 percent).

Figure 2. Length of child care spells, treatment and comparison

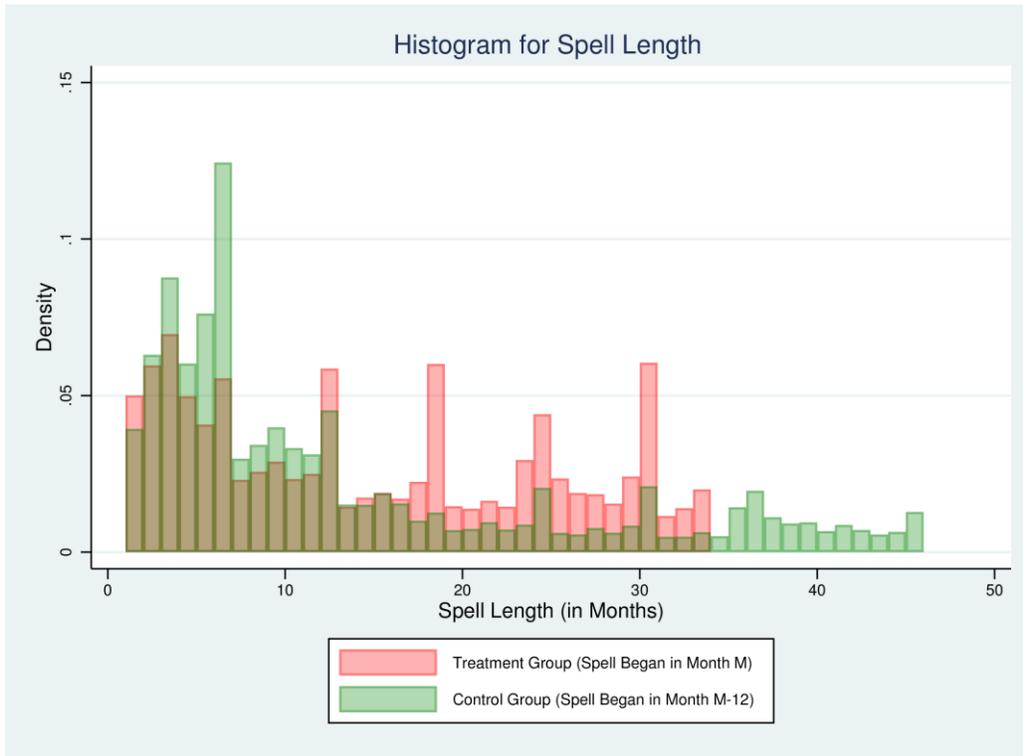
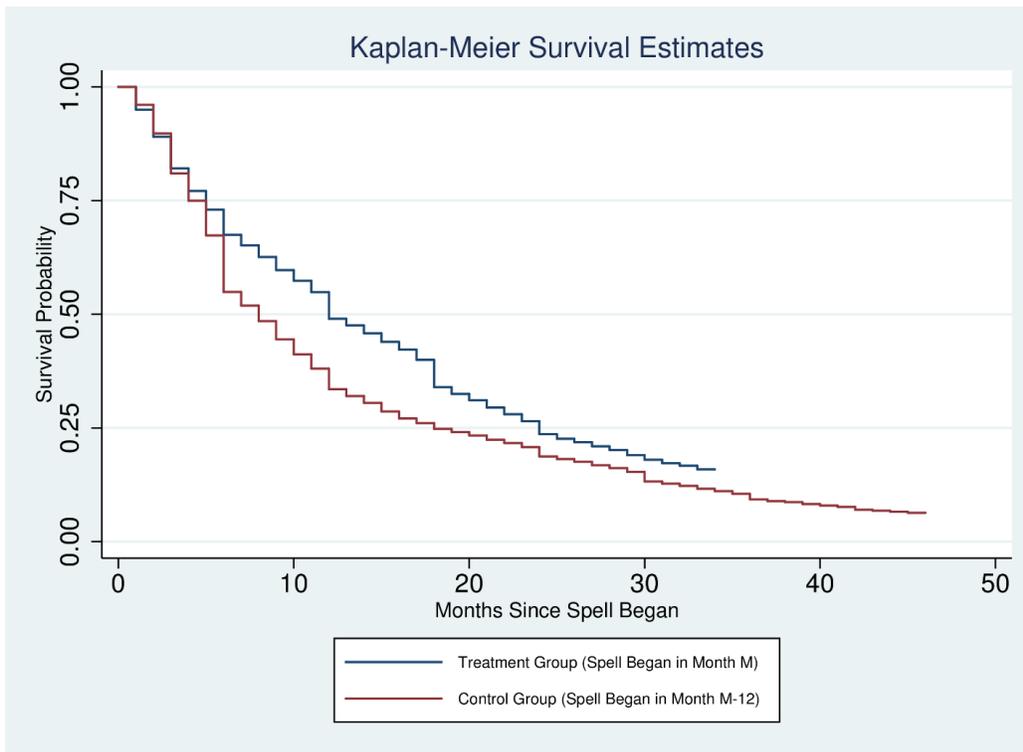


Figure 3. Survival estimates for child care spell length, treatment and comparison



Families participating in the CCAP program may receive child care in from a center-based provider, a home-based provider, or an informal (license-exempt) provider. In the study period of 2012-2016, over half of children in subsidized care were in a center-based environment (see Appendix Figure 6). About 20 percent of children used home-based providers and 30 percent of children had informal providers in 2012 but the share of informal care decreased and the share of home-based care increased so that they represented about 25 percent each by 2016.

We examine spell length by provider type, presented in Appendix Figures 7, 8, and 9. In all provider types, the comparison group has higher proportions of case spells that end at around six months, and the treatment group has more cases lasting 12 months or longer. Also of interest is the number of providers that children experience within a spell of child care service. Overall the number of providers of any type per spell is consistent between the treatment and comparison groups with approximately 1.4 providers per spell; over 75 percent of spells have a single provider and 20 percent having two providers (Appendix Figure 10.). These analyses along with all the preliminary findings will be conducted again once the treatment and comparison cohorts are precisely defined using the new eligibility date information.

As a result of these investigations, we are confident that we can implement the design that we have proposed to evaluate the impact of the 12-month eligibility determination period.

Next Steps

Work in the next grant year will build on the preliminary work summarized in this report. The first next step is to obtain the new eligibility date fields, integrate that information into CCALD, and identify the final study cohorts using the more detailed eligibility period data. Once the cohorts are finalized we will focus on executing a series of linkages with the study population to other sources of administrative data necessary to obtain the outcome measures of interest. Table 2 details the data sources, in addition to CCALD, that are needed for the evaluation.

We will link parents from the study cohorts to quarterly wage records from Illinois Department of Employment Security (IDES) UIWRD for employment and earnings. We will link parents and children to the Illinois Longitudinal Public Assistance Research Database to obtain program eligibility and participation in SNAP (Supplemental Nutrition Assistance Program) and TANF (Temporary Assistance for Needy Families). We will also geocode family address for the study cohorts and link this data at the census tract level to the ACS data on community characteristics including: race/ethnicity, female employment, education level, grandparent caregivers, poverty, and population density. We plan seek data on kindergarten attendance and other education indicators for young children from the Illinois State Board of Education (ISBE).

Key to conducting these linkages is an environment that enables secure data access for the agency and evaluators. The Illinois Administrative Data Research Facility (I-ADRF) will allow secure access to both state agency and external analysts to the same datasets and facilitate data sharing with the evaluators. IDHS and other state agencies, including IDES and ISBE, have already transferred data into the FEDRAMP-approved, secure environment.¹ Data that Chapin Hall has developed, including CCALD, will be transferred to the I-ADRF. Planning for the data transfer is currently underway.

¹ The Federal Risk and Authorization Management Program (**FedRAMP**) is a government-wide program that provides a standardized approach to security assessment, authorization, and continuous monitoring for cloud products and services.

Table 2. Data sources and descriptions for the eligibility redetermination analysis

Data Source	Data Source Description
CCALD	Child Care Assistance Longitudinal Database – child care subsidy payments records and additional information from the Illinois Department of Human Services (IDHS)
UIWRD	Unemployment Insurance Wage Reporting Database – quarterly wage records from the Illinois Department of Employment Security (IDES)
ILPARD	Illinois Longitudinal Public Assistance Research Database – program eligibility and participation in SNAP (Supplemental Nutrition Assistance Program) and TANF (Temporary Assistance for Needy Families) from IDHS
ISBE	Illinois State Board of Education – maintains longitudinal student records for students attending public school in the state including early childhood programs
ACS-Census	American Community Survey 2009-2013 - census tract level aggregates (averages or proportions extracted from census tract data) provided by the U.S. Census Bureau

Once these data linkages are in place we can examine key outcomes for parental employment, continuity of care spell length and provider type, and whether outcomes differ for subpopulations based on characteristics such as child age, rural and urban families, and family participation in other public assistance programs. Finally, we will begin the analysis of potential implications of these redeterminations on the budget and supply of subsidized care. Illinois implemented the 12-month redetermination period statewide in October 2018, the findings from this evaluation study can help inform IDHS preparations for changes resulting from the extended redetermination period.

Appendix

Figure 4. Child age, treatment and comparison cohorts

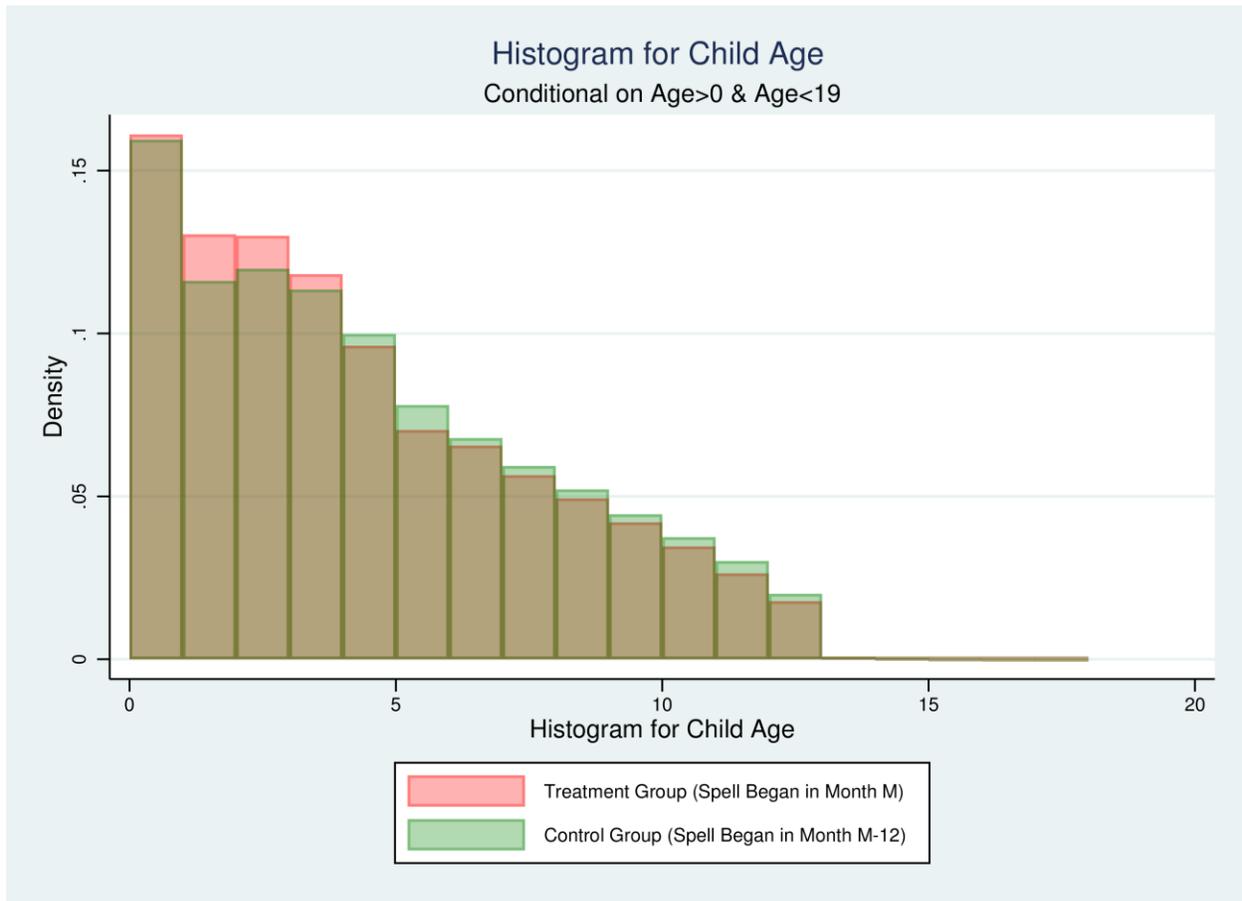


Figure 5. Spells ending at six months, treatment and comparison

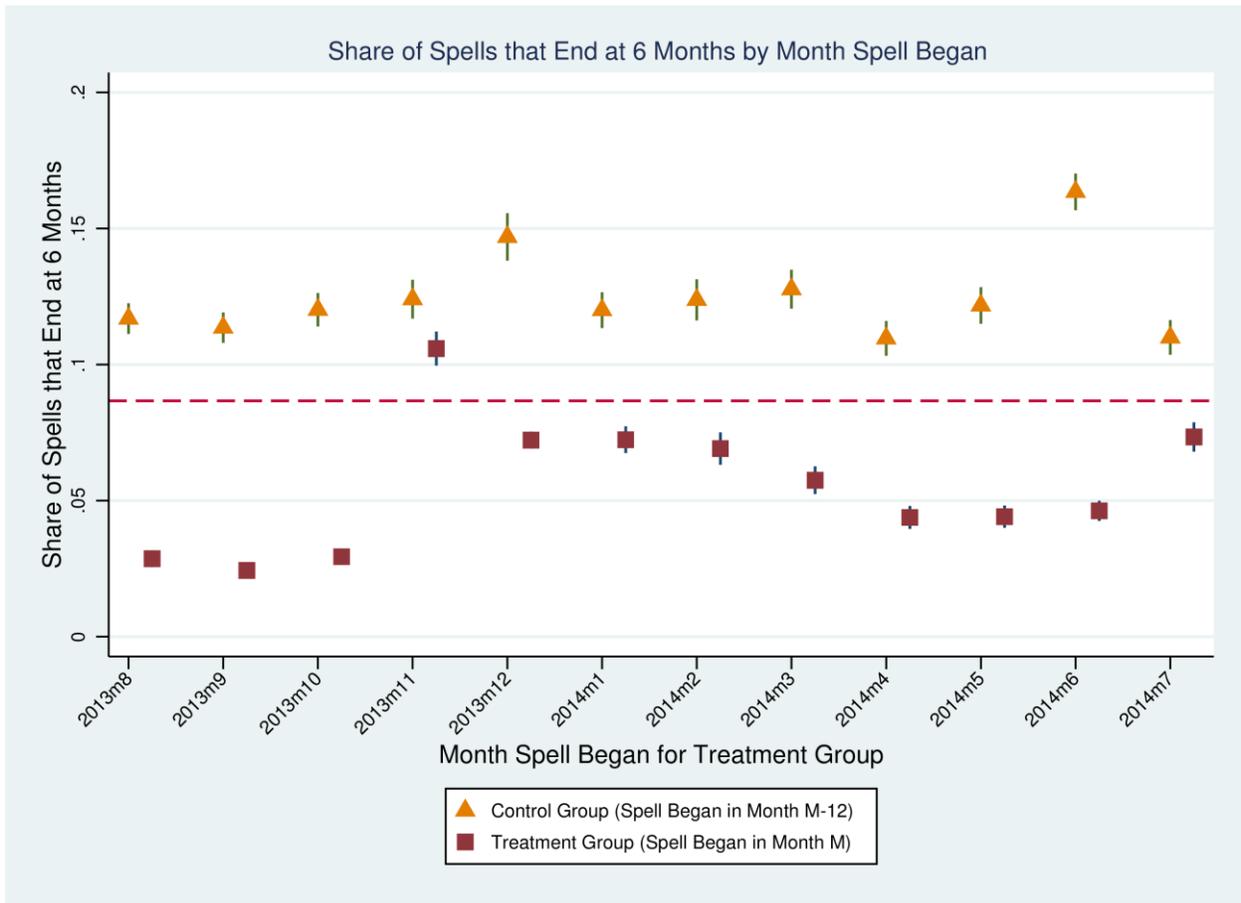


Figure 6. Child care spells by provider type

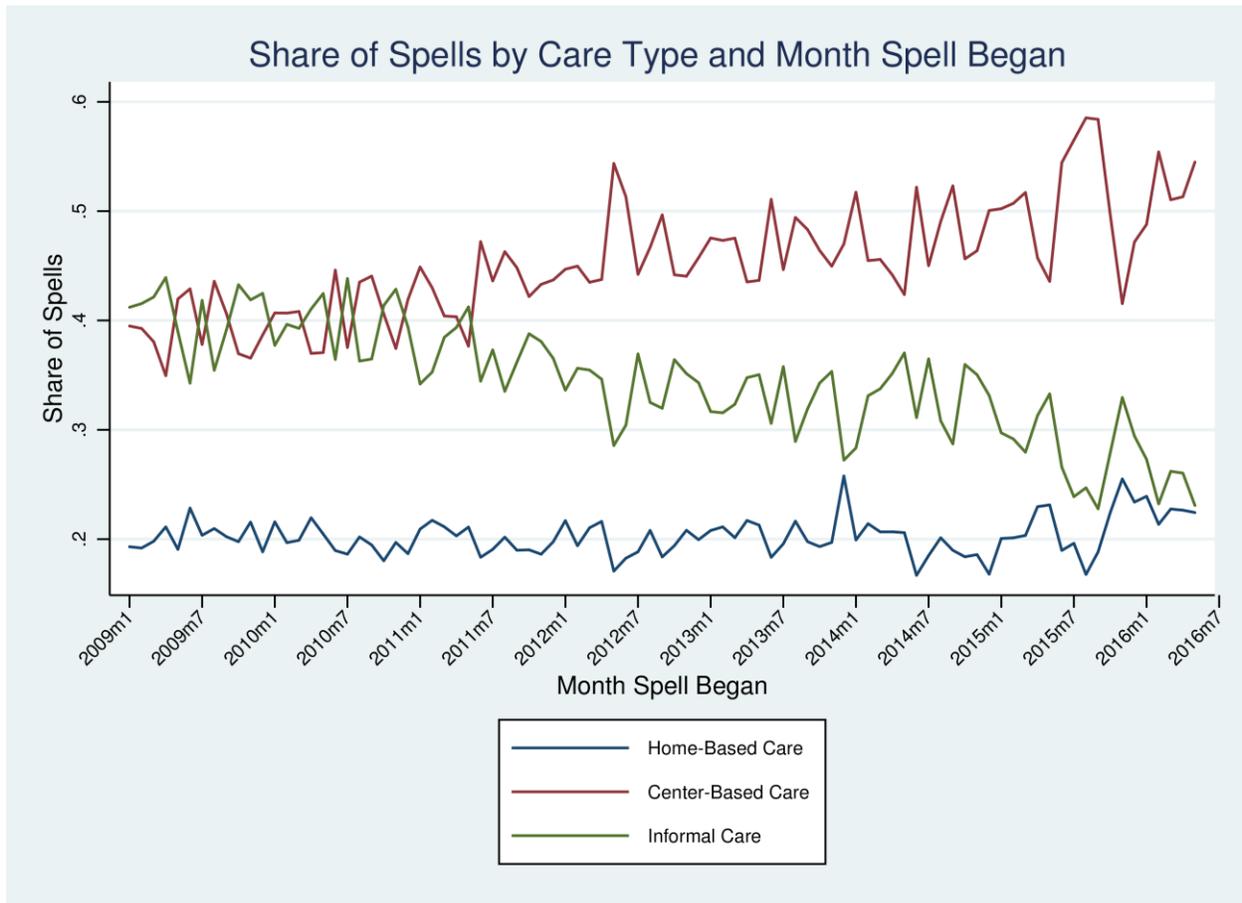


Figure 7. Length of child care spells for center-based care, treatment and comparison

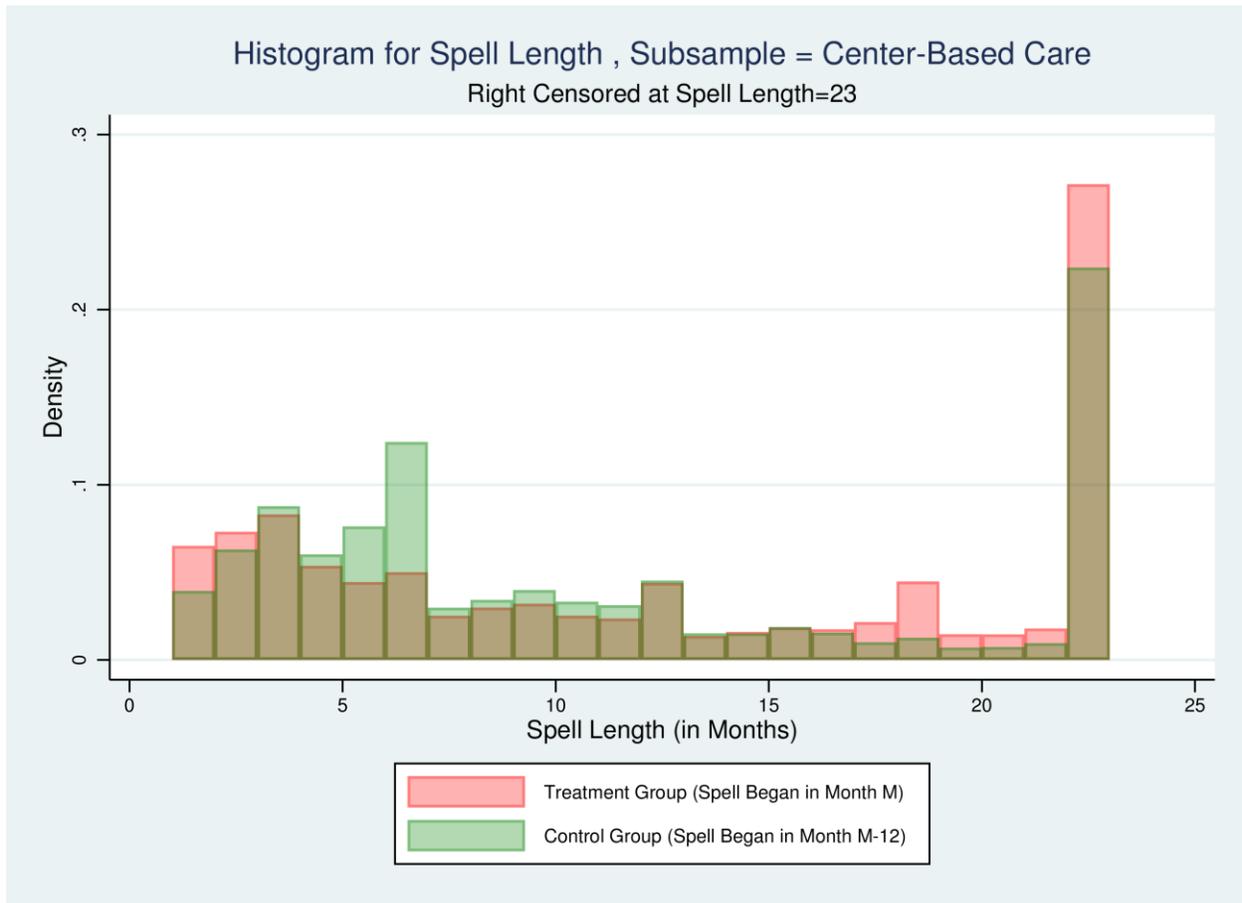


Figure 8. Length of child care spells for home-based care, treatment and comparison

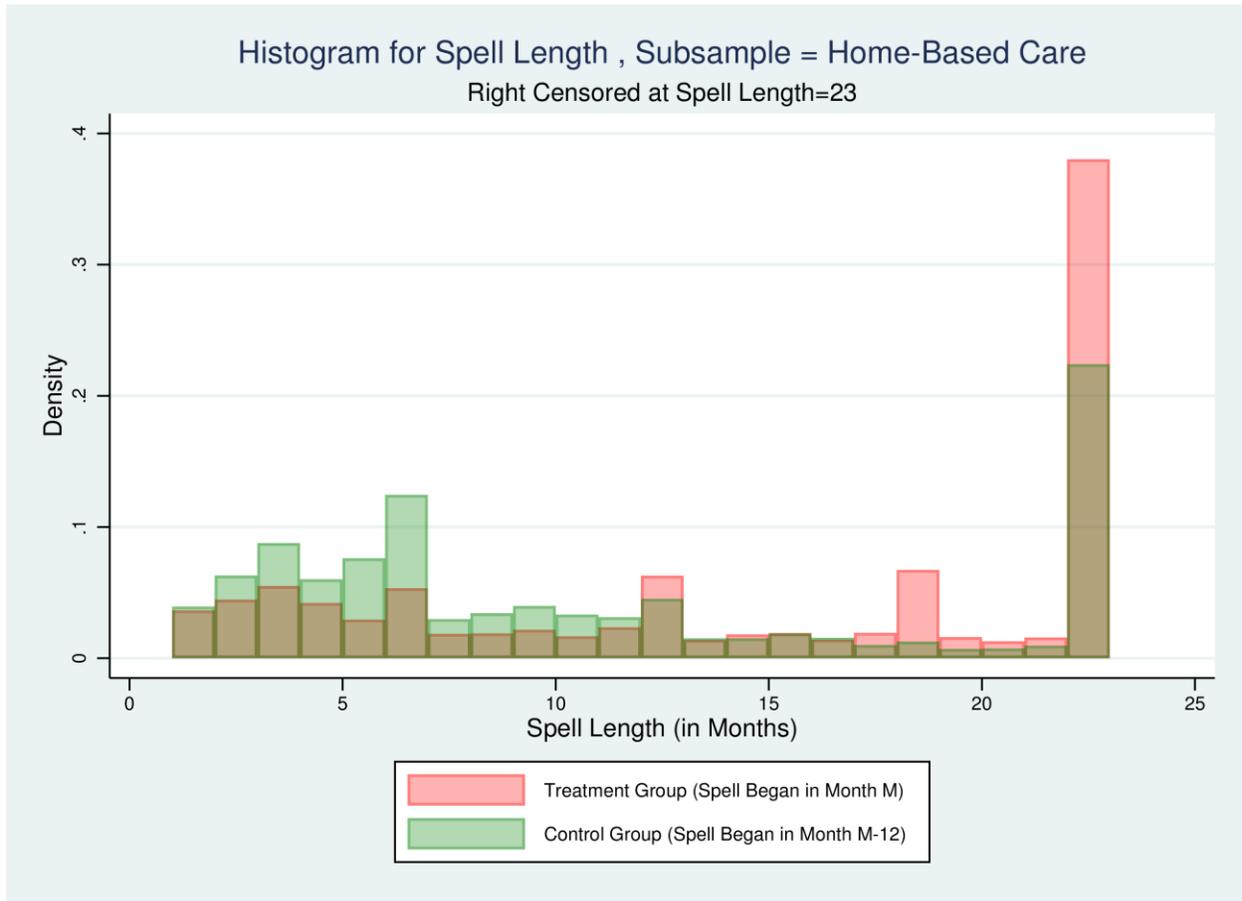


Figure 9. Length of child care spells for informal care, treatment and comparison

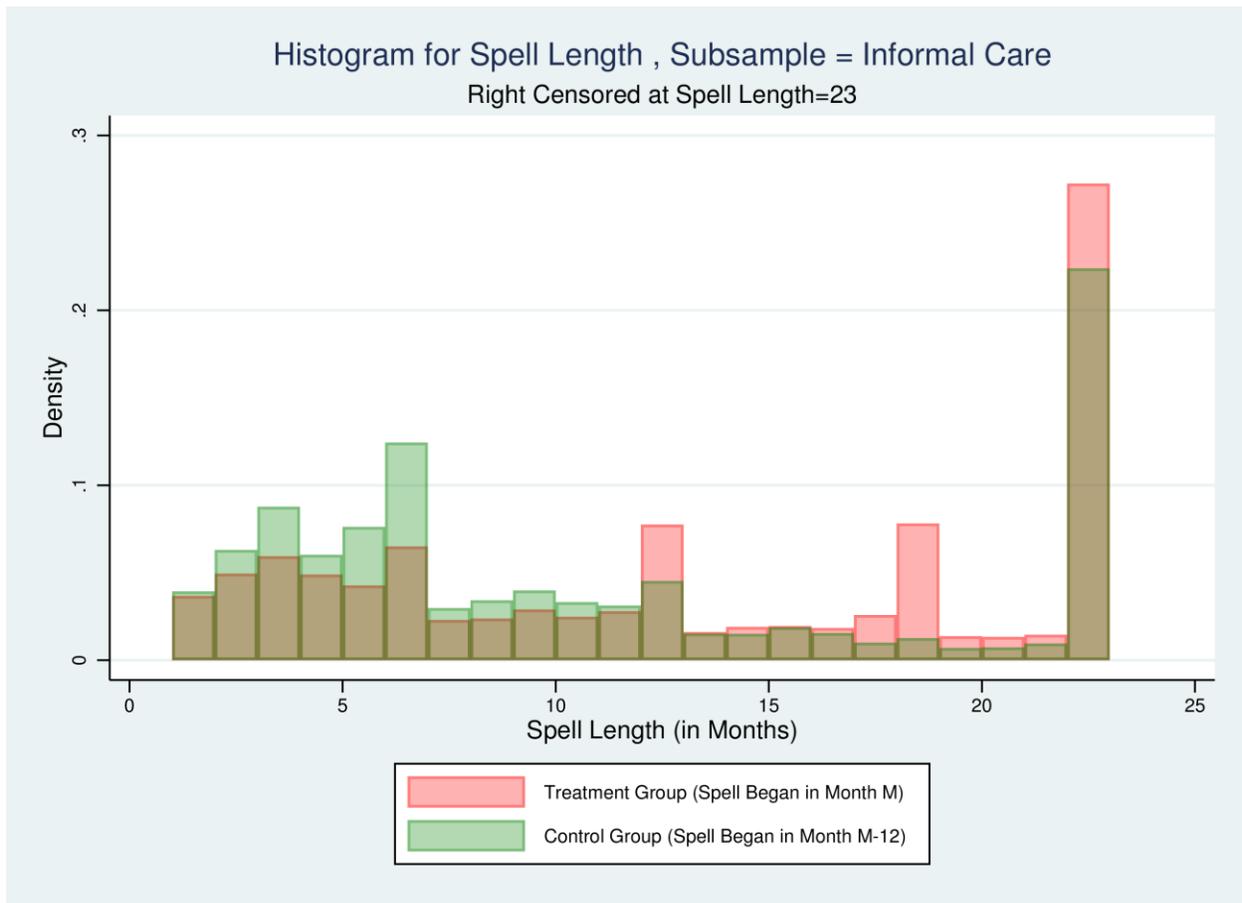


Figure 10. Provider count per spell, treatment and comparison

