## Background

The CCDBG Act of 2014 revised the requirements for conducting market rate surveys (MRS). Surveys must be statistically valid, reliable, and reflect variations in the cost of child care services by geographic area, type of provider, and ages of children. Lead Agencies also have the option to use a statistically valid and reliable alternative methodology for setting payment rates. They must conduct the MRS or alternative methodology no earlier than two years before the date of submission of the triennial CCDF State Plan.

The CCDBG Act requires Lead Agencies to certify that rates are sufficient to ensure eligible children have equal access to child care services comparable to those in State or local sub-markets provided to children who are not eligible to receive CCDF or other Federal or State child care assistance. Lead Agencies must describe the facts relied on to determine that payment rates are sufficient to ensure equal access in the CCDF State Plan. Examples of factors to Lead Agencies can consider include:

- Payment rates are set at the 75th percentile or higher of the most recent survey
- Tiered rates or differential rates for special populations, higher quality care or other conditions
- Rates based on data on the actual cost of providing care
- Data on the size of the difference in expenditures between payment rates set at the 75th percentile and rates that are below the 75th percentile
- Data on the proportion of children being served over time
- Data on the types of settings where children are served
- Feedback from parents, including parent surveys or parental complaints

The benchmark for equal access established by ACF Office of Child Care (OCC) is the 75th percentile of the current child care market. OCC considers payment rates set at the 75th percentile or higher as providing equal access.

## What is the 75th Percentile?

A percentile is the value at or below which a given percentage of observations in a group of observations fall. The 75th percentile market rate is the price at or below which 75 percent of child care providers reported charging for services. The 75th percentile is a ranking of the market prices versus an average of the reported charges.

To calculate market rate percentiles, a researcher lists the prices in rank order, from highest to lowest, alongside the number of providers that reported charging the same price. To use a simple example, assume that 24 providers responded to the MRS and each provider has only one, or the same number of child care slots. The 75th percentile would be the price at or below which 18 of the providers (75 percent x 24 providers = 18) charge for services.

Table A on page 3 of this topic brief illustrates how to calculate the 75th percentile using the information given in this example.

The example above treats the market prices equally by assuming that each provider has the same number of child care slots. Actual child care markets do not work this way. Providers with more capacity have a larger share of the market than do providers with less capacity. In other words, the more children a provider serves, the greater the impact or weight the provider has on the market.

It is for this reason that most researchers recommend the MRS analysis include calculations that weight the price values by slots. This approach provides a more accurate representation of the State or local market and the number of slots available to purchase at the same price.

Table B on page 3 contains the same number of providers (24) and same price information as Table A. Instead of treating each provider equally, Table B weights the price values by the number of slots available at each price level. There are 1,069 total slots in the example. Seventy-five percent of 1,069 equals 802 slots. The 75th percentile is the price that falls at or below the 802nd slot.

Table B counts the total slots for each price value from the bottom up. The corresponding price value at the 797th slot is $2.50 per hour. This is the 75th percentile rate compared to $3.00 per hour without weighting by slots.

Lead Agencies will need to obtain information on provider capacity by age group in order to weight the price values. The three most common methods used to weight market prices:

- Actual licensed capacity
- The number of children currently enrolled with the provider
- The provider's desired or ideal capacity

While each method yields similar results, weighting by desired capacity generally provides a better estimate of the actual number of slots available in the child care market at the same price. Licensed capacity can overstate the number of children a provider intends to serve. Current enrollments data are not static and vary by week, month, or time of year due to seasonal employment or economic conditions.

# CALCULATING 75th PERCENTILE EXERCISE

Assume a county has 24 child care center providers. **Table A** lists the prices charged by each provider ranked from the highest to lowest. The calculation does not take the number of slots each provider has available into consideration.

Seventy-five percent of 24 equals 18 providers. Counting from the bottom, the 18th highest price listed is $3.00 per hour. This means that 75% of providers charge $3.00 per hour or less for care. Therefore, the 75th percentile market rate is $3.00 per hour.

**Table B** performs the same calculation but uses the number of child care slots or capacity of each provider to weight the price values. The result is significantly different from the calculation in Table A. The 75th percentile rate drops from $3.00 to $2.50 per hour.

| Table A. 75th Percentile Based on Price and the Number of Providers | | | |
| --- | --- | --- | --- |
| Number of Providers | Total Providers | Percent of Providers (24 total) | Hourly Price |
| 1 | 24 | 100% | $7.00 |
| 1 | 23 | 96% | $6.00 |
| 1 | 22 | 92% | $5.00 |
| 1 | 21 | 88% | $4.00 |
| 1 | 20 | 83% | $3.75 |
| 1 | 19 | 79% | $3.75 |
| 1 | 18 | 75% | $3.00 |
| 1 | 17 | 71% | $2.75 |
| 1 | 16 | 67% | $2.50 |
| 1 | 15 | 63% | $2.00 |
| 1 | 14 | 58% | $2.00 |
| 1 | 13 | 54% | $2.00 |
| 1 | 12 | 50% | $2.00 |
| 1 | 11 | 46% | $1.75 |
| 1 | 10 | 42% | $1.75 |
| 1 | 9 | 38% | $1.50 |
| 1 | 8 | 33% | $1.50 |
| 1 | 7 | 29% | $1.50 |
| 1 | 6 | 25% | $1.25 |
| 1 | 5 | 21% | $1.25 |
| 1 | 4 | 17% | $1.15 |
| 1 | 3 | 13% | $1.10 |
| 1 | 2 | 8% | $1.00 |
| 1 | 1 | 4% | $1.00 |
| 24 | Total | | |

75th Percentile
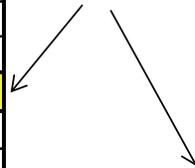
| Table B. 75th Percentile Based on Price and the Number of Slots per Provider | | | | |
| --- | --- | --- | --- | --- |
| Number of Providers | Slots per Provider | Total Slots (1,069 total) | Percent of 1,069 Slots | Hourly Price |
| 1 | 32 | 1,069 | 100% | $7.00 |
| 1 | 30 | 1,037 | 97% | $6.00 |
| 1 | 30 | 1,007 | 94% | $5.00 |
| 1 | 25 | 977 | 91% | $4.00 |
| 1 | 20 | 952 | 89% | $3.75 |
| 1 | 35 | 932 | 87% | $3.75 |
| 1 | 40 | 897 | 84% | $3.00 |
| 1 | 60 | 857 | 80% | $2.75 |
| 1 | 75 | 797 | 75% | $2.50 |
| 1 | 100 | 722 | 68% | $2.00 |
| 1 | 55 | 622 | 58% | $2.00 |
| 1 | 60 | 567 | 53% | $2.00 |
| 1 | 35 | 507 | 47% | $2.00 |
| 1 | 80 | 472 | 44% | $1.75 |
| 1 | 50 | 392 | 37% | $1.75 |
| 1 | 65 | 342 | 32% | $1.50 |
| 1 | 45 | 277 | 26% | $1.50 |
| 1 | 40 | 232 | 22% | $1.50 |
| 1 | 30 | 192 | 18% | $1.25 |
| 1 | 26 | 162 | 15% | $1.25 |
| 1 | 44 | 136 | 13% | $1.15 |
| 1 | 42 | 92 | 9% | $1.10 |
| 1 | 30 | 50 | 5% | $1.00 |
| 1 | 20 | 20 | 2% | $1.00 |
| 24 | 1069 | | | |