

APPENDIX B: METHODOLOGY

DATA

The primary data used in this analysis was downloaded from the North Carolina Families Accessing Services through Technology (NC FAST) at a point-in-time (PIT), April 2019. The data does not include personal identifiers and only includes children who receive child care subsidies. Due to errors and potential malfunctions in NC FAST, there may be missing data; it is unclear how much data may be missing and whether the missing data is statistically significant. Because the Department of Social Services allows families to access child care in another county but use the funds of their resident county to pay for child care subsidies, the data contains out-of-county providers, whose reimbursement rates are paid at their respective county rate, but with the funds from the county where the beneficiary resides.

ANALYSIS

A two-step analysis was created due to limitations on the out-of-county providers that could be sorted into their counties.

First, for four Western NC counties, the data was cleaned to place children in the county where the provider was located since the reimbursement dollars go directly to the provider rather than the family.

Second, analysis of all 100 counties without the issue of out of county providers being moved to their county of operation was conducted. This analysis likely underestimates the dollars that would flow to counties that represent significant employment centers in a region, for example.

The analysis was conducted in the following way.

- The dataset was limited to Benefit Month 4 to capture only one month of service.
- The dataset was limited to four-star and five-star Child Care Center, thereby excluding all other types of providers such as Child Care Homes, Temporary Homes, Probationary facilities.
- The dataset was limited to infants through 5-year-olds, excluding school age children.
- This filtering produced a dataset of unique program participants, with the age of the child, the county of residence, and the star rating for the center they attended.
- The Division of Child Development and Early Education's Revised Market Rates for each county, effective Oct. 1, 2018, were then used to identify the rate each center would be allowed for each child given its star level.
- The 2015 Market Rate Report published by the Division of Child Development and Early Education was then used to identify the reimbursement that would apply to each child based on the star-level of the center if centers were reimbursed at the 75 percent rate (see Appendix A of the report).

- For the children where the state rate would exceed the current county rate for the relevant star-level, the state rate was used to calculate the potential cost of moving to the state rate.
- The total current reimbursement for all children served in the county was then calculated and compared to what the total would be under the state rate.
- Finally, that one-month cost was multiplied by 12 to reflect a full year of service.

Assumptions

- The data did not allow for clearly and accurately identifying the status of children regarding whether they are part-time, full service, or receiving wrap-around services. As such, all children were assumed to be “full-service” students. This assumption likely overestimates the real cost as some percentage of the children currently treated as full-time students would in fact only be reimbursed on a part-time status.
- All service providers receive the full reimbursement rate for their county — this is the assumption made for the data titled “county rate”
- We cannot account for students who may have been missing or otherwise not accounted for in the NC FAST system. While it is not possible to say with precision how missing data could change the real cost, it is likely to have only a modest impact.
- While the data is a snapshot (the month of April), it accounts for seasonal effects per known attendance trends in early childhood. Moreover, a preliminary analysis conducted on a different service month rendered similar results.

Limitations

There are serious data limitations to estimating the fiscal benefit to providers that include but are not limited to missing data in the NC FAST system, narrow scope of point-in-time data, and the presence of out-of-county providers that are being funded with dollars from outside of their counties, which impacts the accuracy of the market reimbursement rates. In so far as local providers and practitioners were able to accurately identify providers in the county, those numbers were adjusted for the Western N.C. analysis.