By Elizabeth E. Davis, PhD, and Jonathan Borowsky, PhD

This study provides strong evidence that higher subsidy payment rates lead to more stable subsidy participation and care arrangements. Children were 10% to 13% less likely to drop out of the subsidy program in counties that received larger rate increases. Subsidized child care arrangements were also more stable in counties that received larger rate increases. Stable relationships and predictable child care arrangements support child development and parental employment, whereas frequent turnover and disruptions of arrangements may have detrimental effects.

Subsidy payment rates are an important policy lever in state child care subsidy programs.

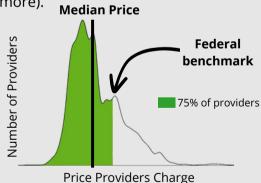
<u>Subsidy payment rate</u> (or reimbursement rate) is the amount the government pays the child care provider for the services received.

While families have flexibility in choosing a provider, most states set maximum subsidy payment rates for providers and pay the provider's charges up to this maximum. The maximum subsidy payment rate has a direct effect on families' access to care because some providers may refuse to enroll children using a subsidy voucher if the maximum subsidy payment rate is set below their usual price.

A higher payment rate increases the value of the subsidy to families in two ways. First, higher rates may expand the set of providers willing to accept the subsidy, expanding families' access to providers who may better fit their needs and preferences. In addition, higher payment rates may reduce families' out-of-pocket costs. In some states (including Minnesota), providers are allowed to charge families the difference between the maximum rate and their usual price. If maximum payment rates are raised, a larger share would be paid by the government and a smaller share by the family. The federal government identifies care as "affordable" if families' expenses are no more than 7% of their income.

How do subsidy payment rates compare to market prices?

The subsidy payment rates set by a state can be compared to the prices paid by families who are not receiving a subsidy (the distribution of the prices providers charge "in the market"). If the subsidy payment rate equals the median price in the market, half of all providers charge that amount or less (and half charge more).



The federal government set a benchmark of the 75th percentile for subsidy payment rates, so that families are expected to have access (based on price) to three quarters of providers. Minnesota has increased rates several times since 2014, reaching the 75th percentile federal benchmark in October 2023.

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RESEARCH QUESTIONS

This study analyzed an increase in subsidy payment rates in Minnesota in 2014, which increased maximum subsidy rates to the 25th percentile of market prices. Two main research questions were examined.

What is the effect of increases in child care subsidy payment rates to providers on:

- **Stability** of participation in the subsidy program
- Continuity of subsidized child care arrangements

OVERVIEW OF METHODOLOGY

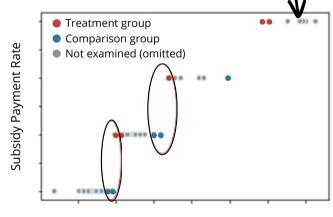
Data on all subsidized child care arrangements in Minnesota were obtained for 2010-2019. Stability and continuity were examined by analyzing:

- The length of time children received subsidized services (stability), and
- The length of time they received subsidized services *from the same provider* (**continuity**).

Because prices (and subsidy rates) vary by type of provider, separate analyses were conducted for length of participation in child care centers and in family child care homes. Additional details on the methods to summarize prices across age groups can be found in the full report.

Minnesota uses a clustering process in which counties are grouped together based on market prices. All counties in a given cluster are assigned the same subsidy payment rate. Four groups of counties ("rate clusters") are determined.

While all counties received subsidy payment rate increases, those that were "pulled up" based on clustering received higher subsidy rate increases than those just below the cluster threshold. Therefore families and providers in counties with similar market prices (just above or just below a cluster threshold) can be compared in a natural experiment design to study the causal effects of subsidy payment rate changes.



Prices Providers Charge

<u>Treatment group:</u> counties just *above* cluster thresholds with subsidy payment rates "pulled up" by clustering, who experience a substantially larger rate increase.

Comparison group: counties just *below* cluster thresholds with subsidy payment rates "pulled down" by the clustering, who experience a substantially smaller rate increase.

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KEY FINDINGS

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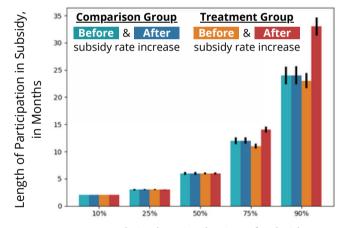
HIGHER STABILITY FOR TREATMENT GROUP

Exit rate:

the proportion of children who stop receiving subsidized care in a given month.

Families in the treatment group were significantly less likely to drop out of the subsidy program each month, leading to longer continuous participation on average.

Stability Among Center Users, Before and After Subsidy Rate Increase



Percentile in the Distribution of Subsidy Participation Length

After the subsidy payment rate increases were implemented in February 2014, counties in the treatment group (which received larger rate increases) saw a substantial increase in participation continuity compared to those in the comparison group.

These gains were largest among children with longer participation spells. Cox regression results indicate that, for children using centers, the exit rate from the subsidy program decreased by 13% more in treatment counties versus comparison counties. For children using family child care providers, the exit rate was 10% lower in the treatment counties.



HIGHER CONTINUITY OF ARRANGEMENTS FOR TREATMENT GROUP

Families in the treatment group were significantly less likely to disrupt their child care arrangement by switching child care providers, leading to more stable child care arrangements.

The subsidy payment rate increase affected arrangement continuity for children using both centers and family child care. Cox regression results show that exit rates from child care arrangements decreased by 12% more for center users, and 7% more (significant at the 10% level) for family child care users, in the treatment group versus the comparison group.

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STATISTICAL MODELS USED

The study used two complementary statistical methods: Kaplan-Meier product limit estimation, and Cox Proportional Hazards regression. The Kaplan-Meier method requires fewer assumptions about the shape of the "survival curve" of how quickly families leave subsidy participation or subsidized child care arrangements, but does not adjust for time trends or child characteristics. The Cox Proportional Hazards model requires slightly stronger assumptions about the shape of the survival curve but allows controlling for time trends and child characteristics such as age, type of subsidy eligibility, and month of enrollment. The two methods yielded consistent results – **stability and continuity increased more in the counties in the treatment group.**

CONCLUSION

Higher subsidy payment rates support two key tenets of the Child Care and Development Fund (CCDF): equal access and parental choice. Longer continuous participation receiving subsidized services and more stable child care arrangements indicate that **subsidy payment rate increases are effective** in helping subsidized families obtain arrangements that meet their needs. Stable relationships and predictable child care arrangements are known to support child development and wellbeing, whereas frequent turnover and disruptions of arrangements may have detrimental effects.

These results confirm and extend previous research from Oregon that indicated a relationship between increased subsidy program generosity and greater stability of participation (Weber et al. 2014). The results from this research based on the quasi-experimental design have a causal interpretation: **higher subsidy rates lead to more stable subsidy participation.**

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