

The Influence of Child Care Subsidies on Child Care Market Prices

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Child care services and markets in the United States

- Child care services are provided by a variety of types of providers including private and public, for profit and not-for-profit, and centers and home-based providers.
- The majority of child care services are provided by the private sector and paid for by parents.
- Government plays an important role in the child care market through regulation & licensing; subsidies and tax credits; and provision of some types of early education services like public pre-K programs.
- Between 1997 and 2006, public expenditures on child care subsidies increased from about \$4 to nearly \$12 billion. How has this affected the child care market?

There is wide geographic variation in average child care prices

- Across all states, average annual full-time fees for a 4 year old in a child care center ranged from \$4,056 in Mississippi to \$11,678 in Massachusetts (2008).
- Within states, there is also price variation, particularly between rural and urban areas, as shown in this table for Minnesota.

Minnesota	75 th percentile weekly price (2007)	
	Centers	Licensed FCC
Type of county		
Rural noncore	\$142	\$120
Micropolitan	\$146	\$125
Metropolitan	\$200	\$130
Minneapolis-St Paul metro area	\$258	\$160

Three studies of child care prices and the influence of subsidies on the market

- Marrufo, G., O'Brien-Strain, M. & Oliver, H. (2003). *Child Care Price Dynamics in California*. Public Policy Institute of California.
- Davis, E.E. & Li, N. (2005). *Child Care Assistance and the Market for Child Care in Minnesota*. A Report of the Minnesota Child Care Policy Research Partnership. St Paul, Minnesota: Minnesota Department of Human Services.
- Davis, E.E., Li, N., Weber, R.B. & Grobe, D. (2009). *Child Care Subsidies and Child Care Markets: Evidence from Three States*. Oregon Child Care Research Partnership.

Model of child care supply and demand

- Demand for child care depends on the number of children needing care, family income, subsidies and tax credits for child care, and family preferences about the type of care.
- Supply of child care depends on the costs of production, such as wages and rent as well as the costs of complying with regulations.
- In equilibrium, price in the child care market is determined by the interaction of supply and demand.
- Real-world complications: Different types of services, lack of full information, variation in quality and access to free or low-cost services from relatives.

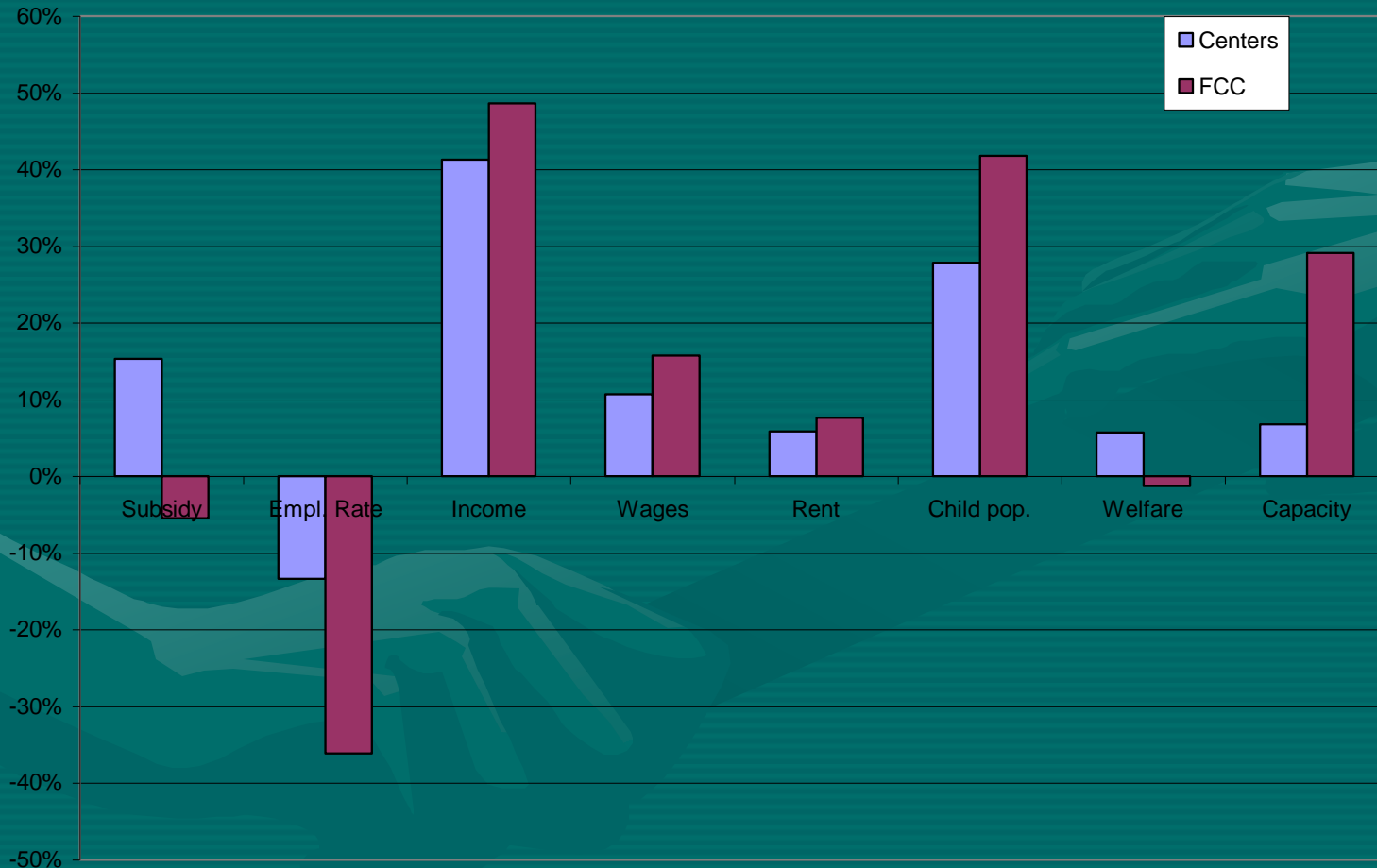
Empirical model and data

- Dependent variable: County-average child care price (separate models for child care centers and licensed family child care providers)
- Demand factors: children under age 13; employment rate; median household income; percentage of children on TANF.
- Supply factors: average weekly wage; fair market rent; non-metro county
- Key variable of interest: Subsidy expenditures per child in county
- All variables deflated and in natural logarithms.
- Similar data sources for all three studies: market rate surveys of providers, Census and BLS. Similar empirical models tested in all three studies. Different time periods studied.

Dependent variable: Mean price for preschool-age children – Child care centers	California	Minnesota	Oregon
Subsidy expenditures per child	0.028*	0.077*	0.055
Employment rate	0.271*	-0.004	0.091
Median income	0.598*	-0.037	0.175
Average wage	0.123*	0.309+	0.303
Fair market rent	0.268*	0.343*	0.844*
Child share in population	0.164*	0.212+	-0.394*
Children on TANF as share of child population	0.103*	0.013	-0.078
Child care capacity (slots per child)	-0.022*	0.039*	-0.022
Rural or nonmetropolitan indicator	-0.048	-0.106	0.076

Dependent variable: Mean price for preschool-age children - Licensed family child care	California	Minnesota	Oregon
Subsidy expenditures per child	0.016*	0.032*	-0.009
Employment rate	0.228*	-0.009	0.112
Median income	0.190*	0.148*	0.094
Average wage	0.110*	0.190*	0.203+
Fair market rent	0.372*	0.175*	0.505*
Child share of population	-0.074	-0.070+	-0.270*
Children on TANF as share of child population	-0.018	0.002	0.008
Child care capacity or enrollment (slots per child)	-0.011	-0.101+	-0.043*
Rural or nonmetropolitan indicator	0.010	-0.113*	0.039

Example of factors associated with CC price change in one county



Are child care subsidies associated with higher prices for child care?

Estimated coefficient on child care subsidies per child under age 5	Oregon	Minnesota	California	
	2000-2004	1998-2004	1992-1997	1998-2000
Child care centers	0.055	0.077*	0.056*	0.028*
Licensed family child care providers	-0.009	0.032*	0.032*	0.016*

Trends in prices, supply and subsidies across the three states

	California	Minnesota	Oregon
Time period	1998 to 2000	1998 to 2004	2000 to 2004
Child care prices, adjusted for inflation	Rose about 3% per year for both centers and licensed family homes.	Rose about 3% per year for both centers and licensed family homes.	Rose 1% per year at licensed family homes and 2% per year at centers.
Licensed/regulated child care supply (per child)	Increased 21% statewide with large regional variations.	Statewide capacity was relatively stable.	Decline of about 13% statewide.
Subsidy expenditures per child adjusted for inflation	Very large increase (289%) in subsidies between 1998 and 2000	Increase of 44% during the study period	Decrease of about 6% over the study period.

Subsidy policy and program differences across the three states

	California	Minnesota	Oregon
Percent of children on subsidy in licensed care	~ 50%	~ 71%	~ 37%
Size of subsidy program relative to market	~ 20%	6% licensed FCC; 10% center slots	~ 7%
Generosity of provider payment rates in subsidy program	Over 90% covered prior to 2003	75 th percentile during study period	Between 21 and 38% covered

Study limitations and issues

- Not a structural model (tried using 3SLS, but instruments are a challenge);
- County-level may not be the most appropriate geographic unit of analysis for looking at child care prices;
- No measure of quality available in the data;
- High level of correlation among variables;
- Small number of observations.

Conclusions

- Factors related to demand and supply as predicted in the basic economic model are significantly related to county-level variation in child care prices within states.
- The estimated coefficient on subsidy expenditures suggests that an increase in subsidies was associated with higher child care prices, particularly for centers, but was not very large.
- Additional research is needed on how the relationship between subsidy expenditures and child care prices differs across subsidy policy regimes and in different types of markets.

Full report available online:

Child Care Subsidies and Child Care Markets: Evidence from Three States

<http://www.hhs.oregonstate.edu/hdfs/occrp-publications>

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