

## **Impact of A Proposed New Tax Credit to Expand High-Quality Child Care on Price of Care**

According to the Center for American Progress, more than 12 million children in the United States under 5 years old attend child care each week, with the average price of a quality center exceeding \$10,000 (Katie Hamm and Martin 2015). Hillary Clinton has included in her policy platform a number of proposals to expand high-quality child care to 3 and 4 year old children (Hillary Clinton 2016). Clinton has not provided detailed specifics about how it would cap child care costs, how much the program would cost, or how it would be paid for, however according to an article in Atlantic Monthly (Lillian Mongeau 2016) it is likely that several of her proposals will closely resemble a proposal issued last year by the Center for American Progress (CAP).

The Center for American Progress proposes a High-Quality Child Care Tax Credit to help low-income and middle-class families afford child care. The tax credit would provide up to \$14,000 per child to reflect the cost of high-quality child care, and would be paid directly by the IRS to child care providers on a monthly basis. Families would contribute up to 12 percent of their income toward the fees (on a sliding scale) and would only apply to child care selected by the parents that is rated as “high quality”. In addition to helping families afford high-quality care, the proposal will also address lack of supply by creating a market for high-quality child care (Katie Hamm and Martin 2015).

Most research examining the issue of lack of access to affordable high quality child care in the US has focused on two main issues: how the cost of child care affects the labor market decisions of mothers of young children, and how child care affects children (David M. Blau and Hagy 1998). In addition to these considerations, it is intuitive that government funding for a child care subsidy in the form of the High-Quality Child Care Tax Credit would lead not only to an increase in the demand for quality child care, but would also put upward pressure on the prices for high-quality child care. For this memo, we are interested in answering the question of how much increasing demand for high-quality childcare could potentially raise the prices of high-quality childcare.

In order to understand the magnitude of the effect of the proposed policy on prices of high-quality child care, we need first to know the price elasticity of demand for high-quality child care. To answer this question, we used data from research conducted by David Blau and Naci Mocan. In their 2002 article, they found that an increase in the intercept of the price function that causes a 10% increase in price for a given quality would cause firms to raise quality by 6.6% and 4.8%, respectively. Furthermore, they found that market price of child care can be increased fairly substantially as quality increases. According to the authors, from a policy perspective, the results of their simulation can be interpreted as the effects that would result from increased demand for child care generated by child care subsidies to consumers (David M. Blau and Mocan 2002). Therefore, we will use these estimates for our calculations of price elasticity of demand for quality child care (Table 1).

According to the Center for American Progress, 12 million children in the United States under age five attend child care each week (Katie Hamm and Martin 2015). Average cost of full-time child care for a typical middle-class family can cost up to \$16,000 per year (Katie Hamm and Martin 2015). For the purposes of this calculation, we will use this \$16,000 price as the cost for high-quality childcare, and assume that every family receives the full \$14,000 tax credit.

Substantial research exists to understand the impact of subsidies on women’s decisions to enter the workforce (Chris M. Herbst 2010). Though there remains considerable uncertainty about the magnitude of the elasticity of employment among women (Ines Hardoy and Schone 2015) we will focus on research that estimates the impact of subsidies on women’s employment decisions. These studies estimated elasticities of .09, -.35 (Mark C. Berger and Black 1992), -.13, and -.36 (Jonah B. Gelbach 2002). See Table 2 for calculations of the increased labor supply of women in the economy due to childcare subsidies.

**Calculations:**

First, we must calculate the elasticity of demand of childcare. Using the data from Blau and Mocan (2002), we find the following elasticities of demand for high quality child care:

**Table 1.** Elasticity of demand for high quality child care

$E^D = 6.6 \div 10$	.66
$E^D = 4.8 \div 10$	.48

Second, we need to understand the impact of subsidies on the women entering the workforce. Currently, 12 million children under the age of 5 attend day care each week. Because women often have to make the choice to leave the workforce to care for children when they cannot afford child care, we will calculate how many additional women would enter the workforce as a result of lowering child care prices through subsidies. Finally, in Table 3, we show what the increased demand for child care would do to the average cost of \$16,000 per year.

**Table 2.** Additional quantity demanded of high-quality care (in millions)

Formula	ED		New Quantity Demanded
$ED = \frac{Q_n - Q_o}{Q_o} \div \frac{P_n - P_o}{P_o}$	.09	$.09 = \frac{Q_n - 12}{12} \div \frac{2,000 - 16,000}{16,000}$	11.04 million
$ED = \frac{Q_n - Q_o}{Q_o} \div \frac{P_n - P_o}{P_o}$	-.13	$-.13 = \frac{Q_n - 12}{12} \div \frac{2,000 - 16,000}{16,000}$	13.32 million
$ED = \frac{Q_n - Q_o}{Q_o} \div \frac{P_n - P_o}{P_o}$	-.35	$-.35 = \frac{Q_n - 12}{12} \div \frac{2,000 - 16,000}{16,000}$	15.68 million
$ED = \frac{Q_n - Q_o}{Q_o} \div \frac{P_n - P_o}{P_o}$	-.36	$-.36 = \frac{Q_n - 12}{12} \div \frac{2,000 - 16,000}{16,000}$	15.78 million

**Table 3.** Impact of increased demand on price of high-quality childcare

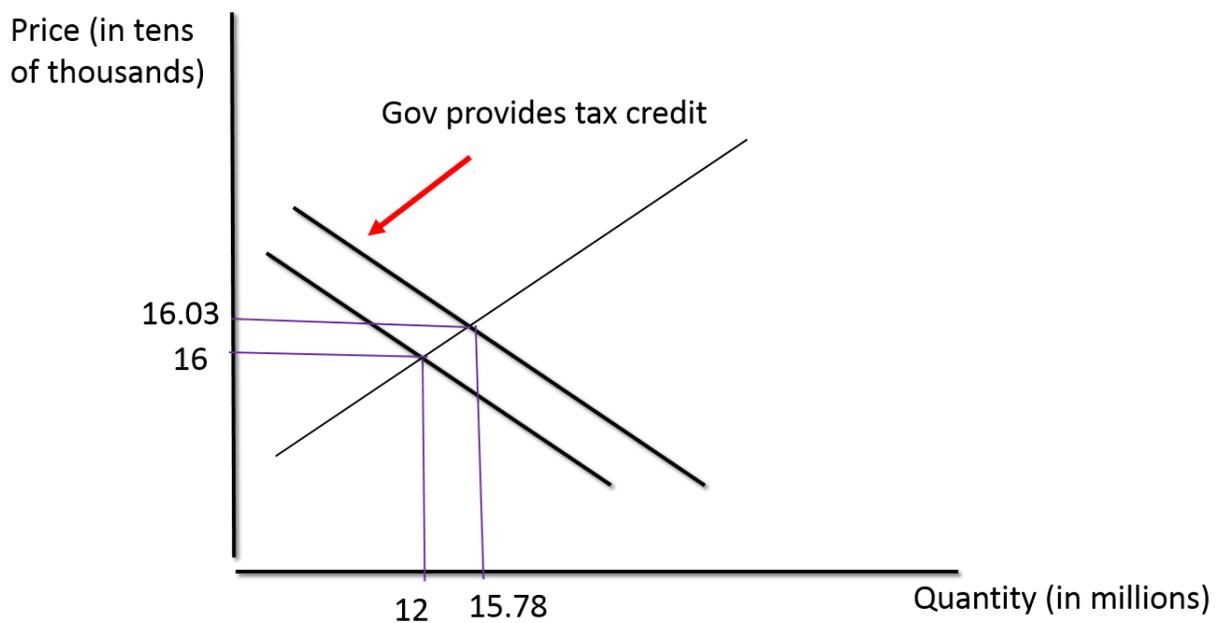
ED for high-quality childcare	Quantity demanded	Formula	New price in \$US
.48	11.04 million	$.48 = \frac{11.04 - 12}{12} \div \frac{Pn - 16,000}{16,000}$	15,990
.48	13.32 million	$.48 = \frac{13.32 - 12}{12} \div \frac{Pn - 16,000}{16,000}$	16,001
.48	15.68 million	$.48 = \frac{15.68 - 12}{12} \div \frac{Pn - 16,000}{16,000}$	16,002
.48	15.78 million	$.48 = \frac{15.78 - 12}{12} \div \frac{Pn - 16,000}{16,000}$	16,042
.66	11.04 million	$.66 = \frac{11.04 - 12}{12} \div \frac{Pn - 16,000}{16,000}$	15,992
.66	13.32 million	$.66 = \frac{13.32 - 12}{12} \div \frac{Pn - 16,000}{16,000}$	16,010
.66	15.68 million	$.66 = \frac{15.68 - 12}{12} \div \frac{Pn - 16,000}{16,000}$	16,029
.66	15.78 million	$.66 = \frac{15.78 - 12}{12} \div \frac{Pn - 16,000}{16,000}$	16,030

**Conclusions:**

This analysis demonstrates that providing a direct subsidy to high-quality child care providers would allow a significant number of women to enter the workforce. In addition, this increased demand would generally increase the annual price of high-quality child care, with a range of \$15,990 to \$16,030. The outer range of the impacts are shown in Diagram 1.

Weighing the costs and benefits of this policy shows that while millions of women would be enabled to enter the workplace under this policy, upward pressure on child care prices

would be minimal. Additionally, a stated goal of this policy was to create a stronger market for high-quality child care. Due to increased demand and price of child care under this policy, over the long run other firms would enter the marketplace, thereby achieving the stated policy goals. These impacts should be considered by policy-makers in considering this proposal for providing a High-Quality Child Care Tax Credit in order to understand the full impact of the proposed policy.



**Diagram 1.** Impact of tax subsidy on demand and price of child care

## References

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