

# Should day care be subsidized? <sup>[1]</sup>

**Author:** Domeija, David & Klein, Paul

**Source:** The Review of Economic Studies

**Publication Date:** 27 Mar 2007

## AVAILABILITY

Full report (pdf) <sup>[2]</sup>

Blog: Why day care should be subsidized <sup>[3]</sup>

Domeija, D., & Klein, P. (2007). Should day care be subsidized. *The Review of Economic Studies*. Retrieved from: <http://swopec.hhs.se/hastef/papers/hastef0729.pdf> <sup>[2]</sup>

## Abstract

In an economy with distortionary taxes on labor, can subsidies on day care, financed by an increase in taxes, raise welfare by encouraging women with small children to work? We show, within a heterogeneous-agent life-cycle framework, that the Ramsey optimal policy consists in equalizing consumption/leisure wedges over the life cycle and across agents. A simple way to implement this is to make day care expenses tax deductible. Calibrating our model to Germany, we find that tax deductibility for day care expenses leads to an approximate doubling of labor supply for both married and single mothers with small children. The overall welfare gain from optimal reform corresponds to a 1.0 percent increase in consumption.

## Blog

The Nordic countries and France heavily subsidize pre-school child care. In Sweden, parents pay only about ten percent of the actual costs. As a result, about 75 percent of all Swedish children aged one to five are in formal day care. In Germany, where the availability of subsidized day care spots is strictly limited, that number is less than 60 percent, and those German children that are in day care typically spend only a few hours a day there unlike their Swedish counterparts who usually spend all day in a day care center. The consequences for female labour force participation are not surprising. In Germany, 58 percent of women with children up to the age of six were employed in 2004. The corresponding number for Sweden is 78 percent.

What is the case for subsidizing day care? Generally speaking, a market economy works best when the prices people face correspond to actual costs. If I pay in proportion to what I take out of the economy and I am rewarded in proportion to what I contribute, then I have an incentive to do what is best for the economy as a whole. However, the ideal market economy where all prices equal true (marginal) costs and incomes exactly reflect (marginal) contributions is not attainable in practice. Every society needs to fund some goods and services on a collective basis. To do this, the government has to levy taxes. As a practical matter, taxes are levied on income and consumption. So taxes inevitably distort choices by driving a wedge between the social benefit of working and the private reward from working. That's a given. The question is not how to remove all distortions but how to minimize their damaging effects.

To see why day care subsidies should be part of a damage-minimization tax policy, consider an economy where people have to pay for day care out of their after-tax income. Suppose the pre-tax wage is €10 per hour and that the cost of day care is €2 per hour and suppose the income tax rate is 50 percent. For simplicity, consider a single parent who needs to buy one hour of child care for every hour that he or she works. The social benefit of working, net of real child care costs, is €8. The net reward, after taxes and day care costs, is €3. Thus the effective wedge is 5/8 or 62.5 percent. What is the effective wedge for people without small children? 50 percent of course. So, in this imaginary economy, the choices of parents with small children are more distorted than the choices of others.

There are strong reasons to think that such inequality of wedges is not a feature of the best possible tax system, the one that distorts as little as possible. To verify that properly, we need a mathematical model. But some well-informed intuition will do nicely for now. Presumably it is at least plausible that jelly beans and candy canes should be taxed at the same rate. Why not? So surely parents with young children should be taxed at the same effective rate as everybody else. In our little example, what would it take for the effective tax rate to be 50 percent for everyone? The answer is: a child care subsidy of 50 percent. Then the net reward for working would be €4 per hour or 50 percent of the benefit to society. This is of course not a coincidence. In general, to equalize wedges between people with and without small children, the thing to do is to subsidize it at the same rate as the marginal tax rate. Equivalently, day care expenses can be made tax deductible. Naturally, tax rates for everyone else will have to rise a bit to finance child care subsidies. But even when we take that into account, an equalization of wedges leads to a more efficient allocation of resources.

In the German context, there is another reason (beyond equalizing explicit tax wedges) to subsidize child care, namely that it encourages people to work who otherwise would have lived on social assistance. For single mothers in Germany, the incentives to work are particularly weak, and day care subsidies would strengthen those incentives. Meanwhile, encouraging people to move from living on social assistance into working for a living is good for the government budget, making child care subsidies cheaper for the public purse. We

conclude that the best subsidy rate for Germany would be 50 percent.

Is formal day care good for children? The evidence is not entirely clear-cut, and many studies fail to find either positive or negative effects on outcomes later in life for children who went to day care. But a recent study by Havnes and Mogstad provides some very strong evidence that formal day care has been good for Norwegian children, especially for those from disadvantaged backgrounds. Gathmann and Sass find similar results for Germany. Thus there is no strong counterargument based on child development to the efficiency case for child care subsidies.

**Region:** International <sup>[4]</sup>

**Tags:** subsidy <sup>[5]</sup>

funding <sup>[6]</sup>

mother's labour force participation <sup>[7]</sup>

---

**Source URL (modified on 27 Jan 2022):** <https://childcarecanada.org/documents/research-policy-practice/15/03/should-day-care-be-subsidized>  
**Links**

[1] <https://childcarecanada.org/documents/research-policy-practice/15/03/should-day-care-be-subsidized> [2]

<http://swopec.hhs.se/hastef/papers/hastef0729.pdf> [3] <https://blog.oup.com/2012/11/subsidized-day-care-domeij-klein/> [4]

<https://childcarecanada.org/category/region/international> [5] <https://childcarecanada.org/category/tags/subsidy> [6]

<https://childcarecanada.org/category/tags/funding> [7] <https://childcarecanada.org/taxonomy/term/8142>