

***The Economic Development Benefits of Universal Preschool Education  
Compared to Traditional Economic Development Programs***

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This paper presents in a shorter version the analysis and findings previously presented in a much longer report, "Taking Preschool Education Seriously as an Economic Development Program: Effects on Jobs and Earnings of State Residents Compared to Traditional Economic Development Programs" (original version September 30, 2005, revised March 13, 2006 and March 30, 2006). The longer version will be expanded into a book.

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## EXECUTIVE SUMMARY

Introduction. In this project, I estimate that high-quality, universal preschool education would have large economic development benefits. The long-run effects would be to boost national employment and gross domestic product by almost 2 percent, which represents over 3 million more jobs and almost \$1 trillion in increased annual GDP.

These economic development benefits occur because high-quality preschool increases both the soft and hard skills of preschool participants, and also their ability to benefit from later education, which increases participants' future employability and productivity in the labor market. This increase in the quantity and quality of U.S. labor supply stimulates business to create new jobs and expand output.

This project considers the economic development benefits of preschool from both a state perspective, and a national perspective. I also compare the effects of preschool with "traditional" economic development programs that offer business subsidies.

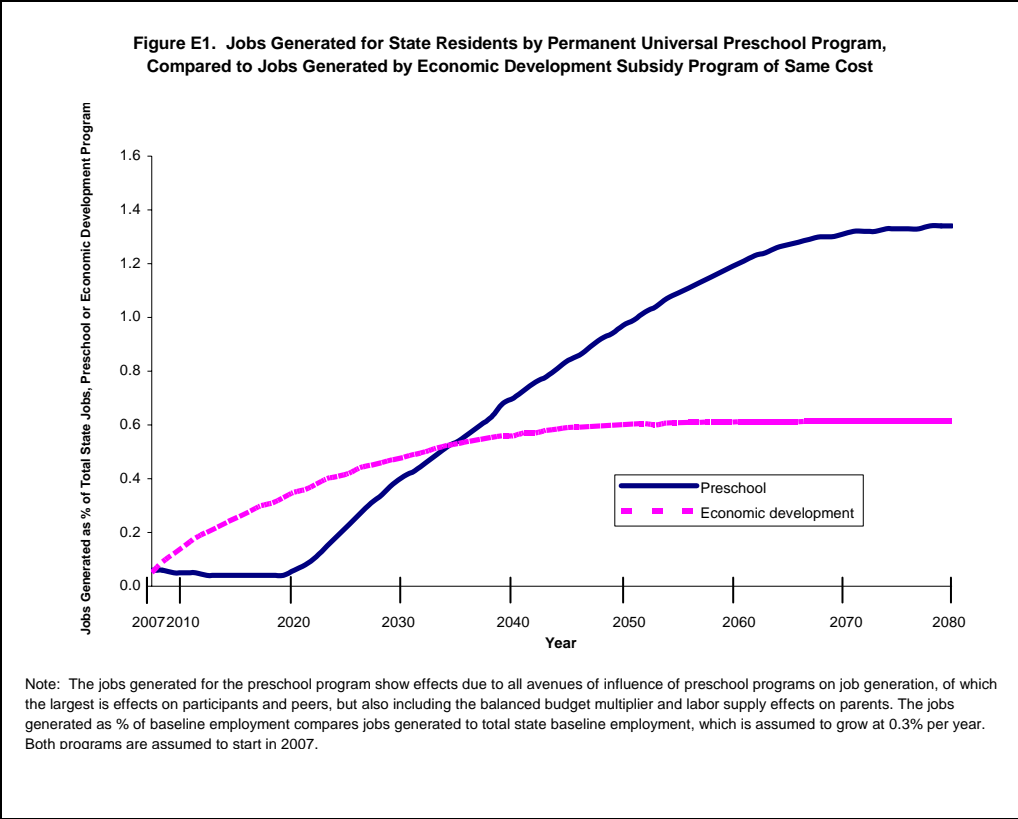
State perspective. U.S. states are actively competing to attract new business, and increase the jobs and earnings of state residents. Most of the resources devoted to state economic development programs take the form of subsidies to business, for example property tax abatements.

More recently, states have begun to view educational investments as important economic development tools. Some researchers and policy groups have suggested that state investments in universal preschool programs could be an important economic development policy.

In this project, I simulate what impact universal preschool education would have in the typical state economy. For comparison, I also simulate the economic effects of devoting the same resources to economic development subsidies to business.

A small portion of the economic development effects of universal preschool occurs through creating jobs for preschool workers, and increasing the labor supply of parents of preschoolers. However, this project's simulations suggest that the major portion of the economic development effects on a state economy of universal preschool occurs through its long-run effects on the quantity and quality of a state's labor supply. Although some preschool participants move out of state, enough preschool participants remain in the state they grew up in—over three-fifths remain in the typical state—to significantly improve the quantity and quality of labor in a state's economy.

Figure E1 shows the simulated effects on a state's jobs of a state's adoption of universal preschool, compared to devoting the same resources to business subsidies. These simulated effects are based on a large body of prior research on how regional economies respond to increases in labor supply and to business subsidies. The figure assumes that this universal preschool program, or a business subsidy program of similar cost, is adopted by the state in 2007.



As the figure shows, initially economic development subsidies create more jobs for a state economy. It is more cost-effective in the short-run to try to tip the location decisions of companies through subsidies than to more directly create jobs through spending more on preschool. But over time, the large increases in the quantity and quality of the labor supply of former preschool participants have a larger effect on a state's economy. By 2033, the state jobs impact of universal preschool exceeds the state jobs impact of business subsidies. In the long-run, after former preschoolers have pervaded the entire age distribution of workers, the annual jobs impact of universal preschool on a state economy is over twice that of business subsidies.

I also simulated the effect of universal preschool on the earnings of state residents, again comparing this with traditional economic development programs that subsidize businesses. Table E1 includes a column showing the effect, from a state perspective, on the present value of the earnings of state residents, per \$1.00 invested in either high-quality preschool or business subsidies. The bottom-line is that either high-quality preschool, or business subsidies, increase the present value of the earnings of state residents by about \$3 for every \$1 of resources devoted to these alternative policies. Preschool has more effects in the long-run, but the short-run advantage of economic development subsidies causes the present value of the state earnings effects of the two policies to be similar in magnitude.

**Table E1. Effects on Present Value of Real Earnings, per \$1.00 Invested in that Policy**

	State Perspective	National Perspective
Universal preschool	\$2.78	\$3.79
Business subsidies	\$3.14	\$0.65

National perspective. The national economic benefits of preschool and business subsidies differ greatly from the benefits from a state perspective, for two reasons. First, many former preschool participants do move out of state. For the typical state, over one-third of preschool participants are estimated to eventually move out of the state in which they were enrolled in preschool. The earnings increase for these out-migrants should be counted from a national perspective, even if they might not be considered from a state’s perspective.

Second, from a national perspective, many of the jobs a state gains by offering economic development subsidies to business are reshuffled from other states. Estimates suggest that for every five jobs gained by the state offering the subsidies, four jobs are reshuffled from other states. Jobs reshuffled from other states should not be counted as “national benefits” of a business subsidy program, unless the state gaining the jobs is significantly more economically distressed than the average state.

For this project, I also simulated the national economic benefits of investing in preschool, or business subsidies, after allowing for effects on out-migrants and jobs being reshuffled among the states. As shown in Table E1, from a national perspective, preschool education increases the present value of real earnings by almost \$4, per \$1 of preschool spending. For business subsidies, the national perspective suggests that for the typical state, each \$1 of resources devoted to business subsidies increases the present value of national earnings by considerably less than a dollar.

The greater benefits of preschool from a national perspective than from a state perspective – a 4 to 1 national payoff versus a 3 to 1 state payoff – provide a rationale for federal financial support for state government investments in preschool education. The lesser benefits of business subsidies from a national perspective than from a state perspective suggests that many states may overinvest in subsidies to attract business. Federal policymakers might consider exploring ways to curb this competition.

The national economic benefits of universal preschool can be stated in other metrics. Table E2 shows the annual national economic benefits of universal preschool, in the long-run after former preschool participants have pervaded the labor force. In the long-run, universal preschool would add over 3 million jobs to the U.S. economy, almost \$300 billion in annual earnings, almost \$1 trillion in increased annual value of Gross Domestic Product, and over \$200 billion in annual government tax revenues. Although the economic development benefits of preschool take some time to be fully realized, these benefits begin to rapidly increase about 15 years after a universal program is begun, and reach half their long-run level after about 35 years.

**Table E2. National Economic Development Effects of Universal Preschool in 2080**

	% Effect	Absolute Effect
Jobs	1.8%	3.2 million jobs
Earnings	1.9%	\$294 billion
GDP	1.9%	\$943 billion
Government taxes	1.9%	\$235 billion
(about 4 times annual cost)		

Conclusion. High quality preschool has been shown by rigorous research studies to significantly raise the earnings of participants. From this research, we know enough to say that high-quality preschool has economic development benefits that are large relative to its costs. For universal preschool programs, even the most cautious and conservative estimates, which considerably scale back the effects per participant from the most rigorous studies, still yield large benefits for state economies and the national economy.