



# The Costs and Benefits of Universal Preschool in California

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Research has shown that well-designed preschool education programs serving disadvantaged children can generate benefits to government and the rest of society that outweigh program costs. As a result of such evidence, there has been a growing conviction among U.S. business leaders, policymakers, and the public that children benefit from structured programs preparing them for school entry. That conviction has been accompanied by increasing enthusiasm for public-sector investment in preschool.

This national trend is reflected in California, where interest in a publicly funded “preschool for all” program has been growing. That prompted The David and Lucile Packard Foundation to ask the RAND Corporation for answers to two questions:

- What are the expected direct costs and benefits for the public sector and society as a whole of implementing a high-quality universal preschool program in California?
- What are the other potential indirect economic and noneconomic benefits for California that may be associated with such a program?

In estimating costs and benefits, the RAND researchers assumed a high level of program quality, meaning that the universal preschool program would meet nationally recognized standards for class sizes, staff ratios, staff qualifications, and other features associated with better outcomes for children. They also assumed a part-day, voluntary program that would enroll 70 percent of the state’s 4-year-olds. Cost estimates were based on data on teacher salaries and other costs in California.

Benefits of universal preschool were based on scientific evidence of the effects of high-quality preschool on disadvantaged children. These effects include reduced remedial education services and increased educational attainment by program participants, reduced abuse and neglect of participants,

## Key findings

A one-year, universal, high-quality preschool program in California would, for a \$4,300-per-child cost beyond current public preschool spending in the state, generate

- \$11,400 in benefits per child for California society, for a net benefit of over \$7,000 per child, or \$2.62 for every dollar expended, under the baseline assumptions of the research
- between \$2 and \$4 in benefits for every dollar expended, under a range of different assumptions
- other potential benefits for the California labor force, the competitiveness of the state’s economy, and economic and social equality.

reduced victimization by crimes committed by participants, increased wage and salary compensation of participants and increased taxes realized by government, and reduced need for child care for participants. Other likely benefits of preschool participation were not included because of data limitations. Adjustments were made for lower-risk children and for children already enrolled in preschool under the existing system who would likely realize fewer benefits under a universal system. All future benefits and costs were discounted to present values at 3 percent per year.

The findings may be summarized as follows:

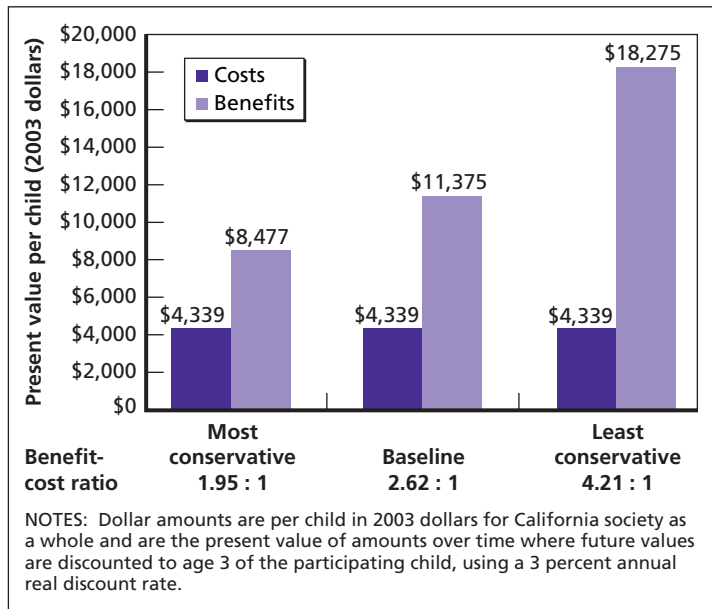
- Universal preschool would generate about \$11,400 in present value benefits per child for California society (public and private sectors), compared to \$4,300 in additional present value costs, for a net benefit of over \$7,000. (See the middle bar in the figure.) That equals a return

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## Costs and Benefits of Universal Preschool in California Under Varying Assumptions



of \$2.62 for every dollar invested, or an annual rate of return of about 10 percent over a 60-year horizon.

- Each annual cohort of California children served would generate \$2.7 billion in net present value benefits for California society.
- Net benefits are negative for California state and local governments, which are assumed to bear the full costs of the program. However, investments in public education are justified not necessarily because they generate a positive return for the state and local government sector but because they generate positive net benefits to society as a whole. In addition, savings to government are likely underestimated, because some sources of future government savings are not accounted for; those include savings related to reduced use of social welfare benefits.
- These estimates are sensitive to assumptions about the distribution of benefits across more- and less-disadvantaged children and about the benefits received through current preschool programs. When a range of assumptions from more to less conservative is considered, the gain per dollar invested ranges from \$2 to more than \$4. (See the left and right bars in the figure.)
- Benefits to society are likely understated because there are not enough data to include some potential benefits—e.g., lower intan-

gible costs experienced by victims of child maltreatment and crime (tangible costs are included) and improved health and well-being of program participants. The best available estimates of intangible victim costs alone would increase universal preschool's net present value by nearly 50 percent for California society.

- The benefit-cost analysis does not incorporate some further economic and noneconomic benefits. These include near-term labor force benefits for California businesses in terms of increased labor force recruitment, participation rates, and workforce performance. Also not incorporated are longer-term benefits for the state in terms of increased economic growth and competitiveness, along with greater economic and social equality.

Other issues are relevant to the decisions involved in adopting universal preschool and implementing it. For example, the RAND research assumes a one-year, universal, high-quality program. A two-year program would generate greater benefits but probably not in proportion to the higher cost. A program targeted at disadvantaged children would be less costly and generate more benefits per dollar expended. However, it would incur administrative costs of determining eligibility, would risk stigmatizing participants, and would unavoidably miss some children in families who could benefit but do not meet the eligibility criteria or are confused about the eligibility rules. Attempting to save money by reducing the emphasis on high quality would presumably reduce benefits, but it is not possible to say by how much.

The RAND researchers noted two further lines of reasoning that support adoption of a universal preschool program in California:

- If viewed as an economic development strategy (because of its long-term economic benefits), universal preschool compares favorably with other such strategies—e.g., expansion of local infrastructure, business assistance, and workforce education and training. Such alternatives may “generate” jobs that would have been created anyway or may simply draw jobs that would have been generated in neighboring communities.
- Public-sector investment in K–12 education has been justified as a critical investment in human capital with long-term benefits. Notably, K–12 education is a universal program. The same argument could be made on behalf of preschool. Public funds would be used to make an investment having a long-term payoff for society as well, whether in the form of lower government outlays or a higher future standard of living. ■

This research brief describes work done for RAND Labor and Population documented in *The Economics of Investing in Universal Preschool Education in California*, by Lynn A. Karoly and James H. Bigelow, MG-349-PF (available at <http://www.rand.org/publications/MG/MG349/>), 2005, 235 pp., \$28, ISBN: 0-8330-3779-X. MG-349 is also available from RAND Distribution Services (phone: 310.451.7002; toll free: 877.584.8642; or email: [order@rand.org](mailto:order@rand.org)). The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

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