

## **AN INVESTMENT LETTER FOR MINNESOTA PHILANTHROPISTS**

Saturday, October 15, 2005

**This issue highlights a recent California study that reveals the documented results to society from high quality early childhood educational programs. Published in 2005 by the RAND Corporation it is entitled, “The Economics of Investing in Universal Preschool Education in California.”**

**The RAND Corporation used data compiled over thirty years in a longitudinal study conducted by the Chicago based Child Parent Centers (CPC) program. RAND used this data base because the results fell midway between the outcomes generated by other longitudinal studies including the Perry Preschool project and the Tennessee based Early Training Project. California demographics, economic status and ethnic profiles for children were then applied to the CPC data base.**

*Total benefits to California Society were estimated to approximate \$11,400 per participating child. This number was offset by costs of \$4,339 per child to provide a gain of \$7,036 per child in net benefits. This computes to a total return on investment of 162% or an internal rate of return for California society of 10.3% over a sixty year time horizon from the initial preschool investment.*

### **THE STATUS OF PRESCHOOL EDUCATION IN THE USA**

- **As of 2001 only 43 percent of U.S. 3- year-olds and 66% of 4-year-olds were enrolled in some form of preschool programs according to the RAND study.**
- **The federal government funds Head Start which serves about 900,000 3 to 4-year-olds each year. Thirty-eight states provide funding for an additional 700,000 children, predominantly 4-year-olds considered to be disadvantaged. Only Georgia and Oklahoma have programs available to all 4-year-olds.**
- **Enrollment rates are lower in communities of color and still lower for families with incomes below the poverty line.**
- **Only 38 percent of 3 to 5-year-olds whose mothers had less than a high school education were enrolled in early education programs compared with 70 percent of those whose mothers had at least a college degree.**
- **State preschool programs vary considerably in quality and dollars invested. Twelve of the thirty-eight states with programs met fewer than five of the ten quality standards set by the National Institute on Early Education Research (NIEER).**
- **Only half of the state programs (20 out of 38) require the lead classroom teacher to have a bachelor’s degree which is required in every state kindergarten program.**

## **WHAT IS THE CALIFORNIA UNIVERSAL PRESCHOOL PROGRAM?**

- **Voluntary program for all age-eligible children.**
- **The program enrolls 4-year-olds.**
- **It involves 525 hours per year of intensive program activity.**
- **“Wraparound” care is available with extended-day care financed by other sources.**
- **The maximum class size is 20. The staff-child ratio is 1-10.**
- **The head teacher in each classroom has a bachelor’s level education with an early childhood education credential. The assistant teacher in each classroom has an associate’s level degree.**
- **Programs use existing or new facilities run by both public and private providers.**
- **Public dollars fully fund the programs.**

## **CONCLUSIONS**

**California adjusted the thirty year experience of the Chicago Child Parent Centers (CPC) Program to reflect its own demographic and preschool experience. The statistical results for like programs were then used by California to determine the value added from intensive preschool training for 4-year olds. The CPC Program has tracked children from age 4 to age 21 and 22. The statistically significant results include:**

- **Advantages in reading achievement scores as late as age 14.**
- **Lower likelihood of retention in grade by age 15.**
- **Reduced use of special education through age 18.**
- **Lower incidence of child abuse and neglect from ages 4-17.**
- **Lower likelihood of involvement in the criminal justice system by age 18.**
- **Greater likelihood of high school graduation by age 20.**

## **WHO BENEFITS?**

- *California taxpayers benefit directly from higher rates of income and sales taxes paid and reduced social service and criminal justice system expense.*
- *California employers benefit from a better educated labor force.*
- *The State of California benefits longer term as a more skilled work force provides stronger economic growth, more competitive businesses and enhanced opportunity for economic and social equality.*

## **THE RATIONALE USED TO DETERMINE THE RETURN ON INVESTMENT**

To calculate the costs of a universal program assumptions are made about the hours per day involved, the weeks per year, class room space required, staffing needs both teaching and administrative and wage rates. The resulting total is about \$5,700 per child. Estimated current spending is deducted to arrive at the net cost per child figure of \$4,379.

- **Educational savings** come from the reduction in grade repetition and decrease in years spent in special education. The increase in high school graduation rate also triggers an estimated offsetting cost in higher education costs as college attendance increases.
- Savings from reduced **child welfare expenses** come from savings to government and victims related to lower rates of child abuse and neglect. Case histories are used to determine the costs related to physical injuries and mental health issues.
- Identifiable costs are used to determine savings to government and victims of crimes processed through the **juvenile justice system**. Estimates of the cost of adult crime can be linked to the reduction in juvenile crime.
- With respect to **compensation and the impact on taxes** the CPC program tracked differences between those attending preschool and those who did not. Lifetime earnings to age 65 were assumed.
- The **value of child care** was estimated to equal the hourly rate of the minimum wage with the assumption that hours spent in day care would free up an equivalent amount of time for employment.

## **CALCULATING THE RETURN ON INVESTMENT FOR UNIVERSAL PRESCHOOL IN CALIFORNIA**

<u>Source</u>	<u>Benefits (Costs) to Society California</u>		<u>Benefits (Costs) to Society U.S.Total</u>	
	<u>\$/Child</u>	<u>\$/Cohort(millions)</u>	<u>\$/Child</u>	<u>\$/Cohort(millions)</u>
<b><u>Program Costs</u></b>	-4,339	-1,671	-4,339	-1,671
<b><u>Program Benefits</u></b>				
Education Outcomes	876	337	992	382
Child Welfare	102	39	141	54
Juvenile Crime	1,220	470	1,220	470
Value of Child Care	<u>2,406</u>	<u>926</u>	<u>2,406</u>	<u>926</u>
Total Measured	4,604	1,772	4,759	1,832
College Attendance (Est.)	-173	-67	-173	-67
Employment (Est.)	5,801	2,234	7,940	3,057
Adult Crime (Est.)	<u>1,143</u>	<u>440</u>	<u>1,143</u>	<u>440</u>
Total Projected	6,772	2,607	8,910	3,430
<b>Total Benefits</b>	<b>11,375</b>	<b>4,379</b>	<b>13,669</b>	<b>5,262</b>
<b>Net Benefits</b>	<b>\$7,036</b>	<b>\$2,709</b>	<b>\$9,329</b>	<b>\$3,592</b>
<b>Benefit-Cost Ratio</b>	<b>2.62</b>		<b>3.15</b>	
<b>Internal Rate of Return</b>	<b>10.3%</b>		<b>11.2%</b>	

**NOTES: Amounts are in 2003 dollars and reflect the present value of amounts over time where future values are discounted to age 3 of the participating child. Dollars per cohort assume a cohort of 4-year-olds of 550,000 children and a 70 percent pre-school participation rate. Source: page xxix of "The Economics of Investing in Universal Preschool Education in California" published by the RAND Corporation.**

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