

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

**Monday, October 15, 2007**

This issue returns to the topic of early childhood education by reviewing the results of “The Chicago Child-Parent Center Program”. The work of the center and the benefits of quality early education programs were published recently in the Journal of the American Medical Association’s Archives of Pediatrics & Adolescent Medicine. This research was led by University of Minnesota Professors Arthur Reynolds and Judy Temple.

The Chicago Longitudinal Study has been following a sample of 1,539 children born in 1980 from low socioeconomic families. The 989 children who completed the Chicago CPC pre-K program and kindergarten were compared with a control group of 550 who did not attend pre-school but did participate in all day kindergarten. This study is the most comprehensive review of a widely recognized and respected large scale program. It supports findings found in the earlier Perry Pre-School (Michigan) and Abecedarian (North Carolina) studies.

*A 2002 cost benefit analysis of the Chicago CPC pre-K program found \$47,759 in net present value benefits and \$6,692 in net present value costs in 1998 dollars or a benefit to cost ratio of 7.1 to 1. Converting these results to an annual return on investment suggests long term results to the non-participating public and government at least comparable to the 12% ROI derived by Rolnick and Grunewald (Federal Reserve Bank of Minneapolis )in their 2003 evaluation of the Perry preschool program.*

## **WHAT’S THE PROBLEM?**

- The Minnesota Department of Education finds that only 50% of Minnesota children are prepared to enter kindergarten. This negatively impacts progress in primary grades as well as high school graduation rates.
- Numerous studies (Chicago, Michigan, North Carolina) now prove that the lack of affordable and accessible quality early childhood programs creates an unnecessary large financial burden for future tax payers.
- A 2005 Bush Foundation study concluded that approximately 111,000 Minnesota children from birth to five years live in poverty. Only about 45% of these are being served with early childhood programs.
- The critical needs are physical access to quality child care, a user friendly quality rating system of child care providers and financial support to needy families that insures that quality care is affordable.
- Minnesota has no systematic, funded infrastructure for assuring high quality pre kindergarten preparation or even an agreed upon definition of quality beyond basic licensure and accreditation regulations.

## **WHY DOES THE CHICAGO CPC PROGRAM WORK?**

- Language based instructional programming is diverse and structured to promote social and academic success.
- High priority is given to recognition of letters and numbers, oral communication, listening and an appreciation for reading and drawing.
- Child-to-teacher ratios in Pre-K (17 to 1) and Kindergarten (25 to 1) are low promoting individualized and intensive learning.
- Under the supervision of the “parent-resource teacher” the parent program is comprehensive involving classroom volunteering, attendance at school events and educational courses for personal development.
- A “school-community representative” coordinates resource mobilization, home visitation and location and enrollment of children most in need.
- There is continual staff development for all personnel at each center.
- Special services are provided including: health screening, speech therapy, shared nursing services and free breakfasts and lunches.
- In contrast to many preschool programs teachers in the CPC program have at least a bachelor’s degree with certification in early childhood education.
- Staff stability and compensation are high relative to other programs.
- Individual classrooms have one teacher aide and often parent volunteers. Each center includes a parent-resource teacher who implements programs for parents in the “parent resource room”.
- Children generally enter the program at age three for a three hour morning or afternoon session during the regular nine month school calendar.
- CPC programs operate under the sponsorship of the Chicago Public School system in a wing of the elementary school or in a separate building close by.
- A head teacher manages each center coordinating child education programs, parent involvement, community outreach, health and nutrition.

## **WHO BENEFITS?**

- *Chicago CPC Center children benefit by having higher test scores at ages five, six, nine and fourteen and higher graduation rates than non-center students.*
- *Taxpayers benefit directly from higher rates of personal income, sales taxes paid and reduced social service and criminal justice system expense as documented by Professors Reynolds and Temple.*
- *Minnesota employers. The Business Roundtable finds that higher quality employees are recruited and retained when assistance is provided allowing better access to high quality early childhood programs.*

## **WHAT'S THE RETURN ON INVESTMENT ?**

The methodology used by Reynolds and Temple to calculate the rate of return on the initial dollars invested in the program was based upon the most comprehensive analysis of an established large scale program yet undertaken. Pre Kindergarten students had relatively higher rates of educational achievement as well as attainment of health insurance, lower rates of the more serious criminal behaviors such as felony arrests, convictions and imprisonment and lower rates of depressive symptoms. Reynolds and Temple 2007 nineteen year follow up study was the first to recognize the linkage between quality pre K participation and higher rates of insurance coverage and lower rates of depressive symptoms, likely a result of higher school achievement. Since expenditures for medical care and criminal justice system represent about 20% of GDP the prospective cost savings to taxpayers are large.

Educational attainment data was derived from school records and a survey of participants or family members. Criminal justice system involvement was obtained from governmental agencies plus an adult survey. Economic well being was assessed from the Illinois Department of Employment Security as well as the adult survey. Health insurance data came from both public (Medicaid) and private (employer-based) sources. Depressive symptoms were reported in the adult survey.

In the 2002 study Reynolds and his colleagues identified \$47,759 in net present value benefits and \$ 6,692 in net present value costs in 1998 dollars. The benefits derived primarily from lower public education costs due to lower grade retention and special education, reduced costs in the criminal justice system and for victims due to lower crime rates, greater earning power by center participants and increased tax revenue reflecting higher lifetime earnings of program participants. Not included in the computation of the 7.1 to 1 benefit to cost ratio were the benefits derived from reduced pain and suffering by victims. Also the prospective savings from lower welfare usage on the part of center participants was not evaluated. Finally the benefit to the next generation by parents who adopted healthy life styles could not be calculated.

## **CALCULATING THE RETURN ON INVESTMENT**

## **Benefits of the Chicago-Parent Center Pre K Program**

	<b><u>Non-Program Group</u></b>	<b><u>Program Group</u></b>
Special Education by age 18	24.6%	13.6%
Grade Retention age 15	38.4%	23.0%
Years in Special Education (from ages 6-18)	1.43	.73
Arrested by age 18	25.1%	16.9%
Arrested for Violent Offenses (by age 18)	15.3%	9.0%
High School Graduation (age 20)	38.5%	49.7%
Have Insurance Coverage (age 24)	61.5%	70.2%
Victim of Abuse or Neglect (ages 4-17)	10.3%	5.0%
Full time Employment (age 24)	36.4%	42.7%

Source: Reynolds et al (2002/2007)

**TOTAL SAVINGS PER STUDENT OF \$47,759 DIVIDED BY THE DISCOUNTED COST PER STUDENT OF \$6,692 RESULTS IN A TOTAL RETURN ON INVESTMENT OF 610% BY AGES 17-20 FOR EACH PROGRAM GROUP STUDENT.**

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