



Early Childhood Advocates Push for Investment Study Suggests Preschool Pays for Itself in Net Benefits to Society

Earlier this year in Nixa, Missouri, Governor Nixon called for increased funding in preschool education stating, “Early childhood education is a smart investment with a big return” that “prevents much more difficult and expensive academic problems from developing down the road.”

A bill to provide funding for early childhood education to disadvantaged preschoolers advanced this month by the Senate Education Committee. SB133 would enable school districts to receive state aid to operate programs for children ages three to five who qualify for the free and reduced lunch program. The allocation would range from \$71 to \$285 million and be contingent upon a fully funded foundation formula (Strope, 2013).

The bill’s sponsor, Sen. Joseph Keaveny, D-St. Louis, looked at early childhood studies and saw evidence that suggests that kids who attend preschool are less likely to engage in criminal behavior and more likely to have successful careers and enjoy homeownership. “Research shows that the biggest impact for early childhood is with children who are poor,” Keaveny said.

Traditional thought has long emphasized the relationship between early childhood education and academic success, but researchers now are finding that preschool does not have a substantial effect on increasing IQs but rather develops a child’s “soft skills” and can have a profound effect on adult earning potential especially for disadvantaged kids.

Evidence shows that non-cognitive skills matter. Through activities like finger painting, playing with blocks, and interacting with other students, children learn how to control impulses, keep anger in check, stay on task, listen, and follow curiosity. These soft skills are basic, but important tools are needed to learn, find and keep a job and just manage everyday life. Most children gain these skills at home from their parents, but disadvantaged kids often miss the window of opportunity, which are the critical years before Kindergarten.

What Governor Nixon and Senator Keaveny alluded to in press statements speaks to a literature of empirical evidence that shows strong outcome effects for kids who attend preschool. Using cost-benefit analyses, researchers have found a link between



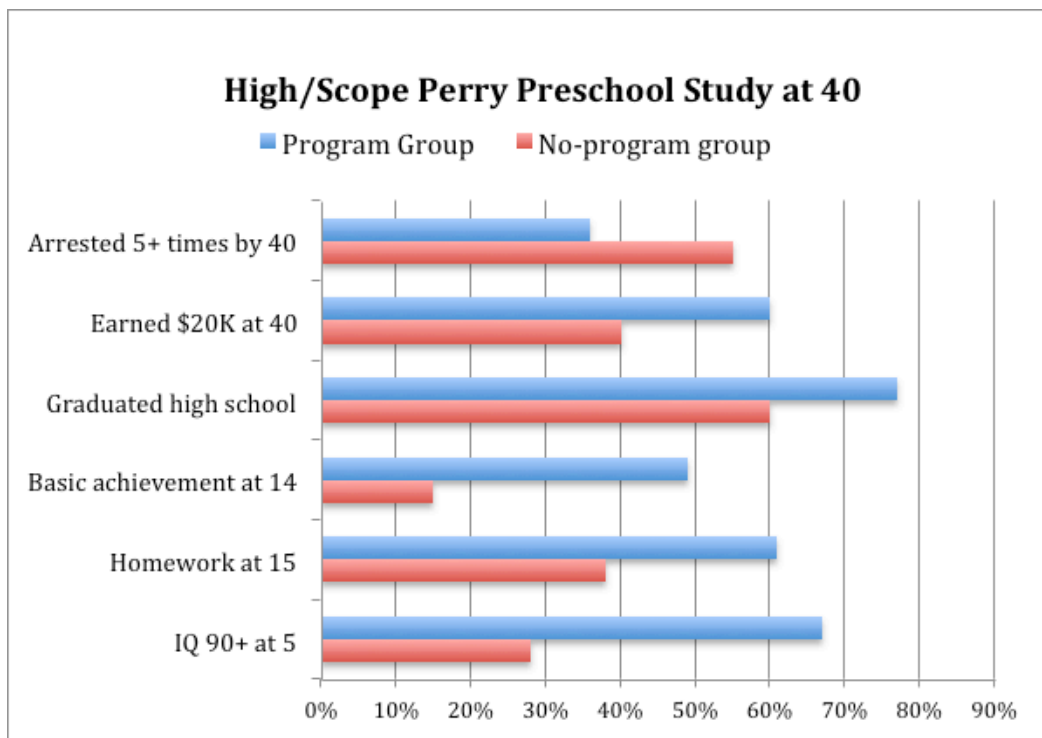
preschool attendance and reduced crime, fewer teen pregnancies, higher rates of college enrollment and less need for public assistance. These studies show that pre-school provides the best value and produces more net benefits to society than increased classroom time or job training programs.

Evidence from the Perry Study

The most widely cited early childhood intervention occurred in Ypsilanti, Michigan during the 1960s. Children with low IQ scores and a low socioeconomic index were invited to

participate in the Perry Preschool Program. Using a coin toss, researchers divided students into two groups, a treatment group and a control group. Starting at age three, the “treatment” kids got 2.5 hours of preschool a day and weekly home visits for two years. The “control” kids did not participate in either of the services. Researchers interviewed both groups at ages 15, 19, 27, and 40 and asked them questions about life events like school, work, marriage, parenting and incarceration. The following chart shows the major findings of the study.

Table 1: Major Findings



Source: Lifetime Effects: The HighScope Perry Preschool Study Through Age 40 (2005).



The pre-school girls went farther in school, earned higher GPAs, and received less special education than girls from the control group. Boys benefitted as well, but the boys who did not receive the preschool intervention were 2.3 times more likely to get arrested. The cost-savings alone from just the crime reduction demonstrated success.

With increased scrutiny over government spending, cost-benefit analysis gives policy analysts a tool to separate productive programs from ones that yield no social gains. A recent cost-benefit study that used a wider variety of assumptions and applied more rigorous accounting rules, estimated a return rate of about 7-10%. By monetizing social crime, the researchers were able to estimate that for every dollar invested in preschool, society earned back \$30 to \$300 dollars over the course of a lifetime (Heckman, Moon, Pinto, Savelyev, & Yavitz, 2010).

Abecedarian and Chicago Studies

Other studies confirmed the results of the Perry Preschool Project. The Carolina Abecedarian project in the 70s randomly assigned infants into intervention and control groups. The intervention group received full-day childcare from birth through Kindergarten. Intervention kids scored higher in reading and math, completed more education, were older when their first child was born and the mothers of intervention kids progressed farther in school and made more money than the control mothers. They even

found that intervention kids smoked less (see addendum).

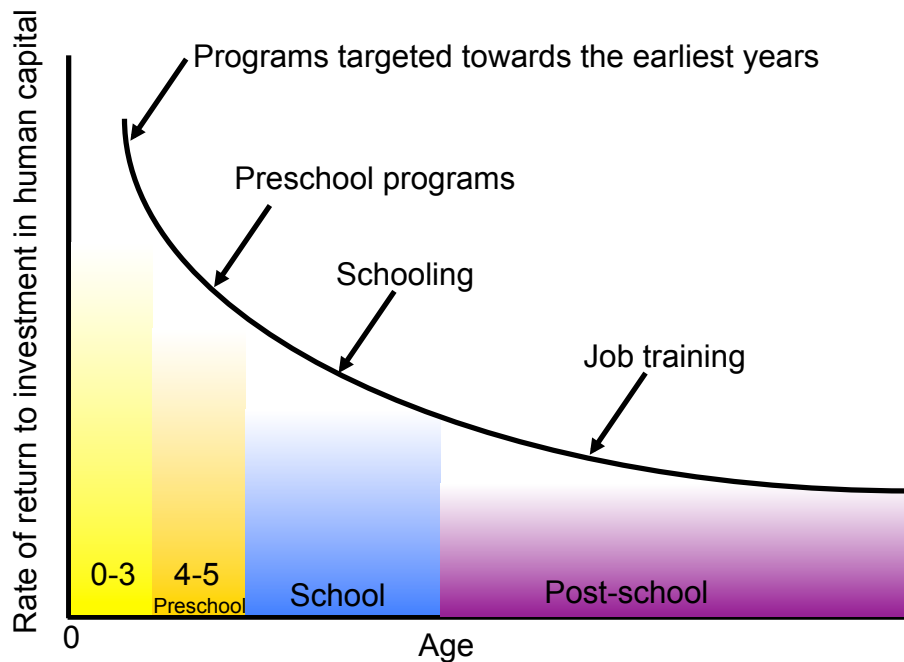
A full-day five-year Pre-K program, while effective, would likely be cost-prohibitive for any state budget; however, the findings proved that early intervention does make a difference. And evidence suggests that a less expensive program could produce similar outcomes (Barnett & Masse, 2007).

Just as Abecedarian kids earned higher wages than the control group, researchers found similar results from participants of the Chicago Child-Parent Program. The Chicago program targeted disadvantaged kids and provided a Headstart type intervention from ages three to nine. A cost-benefit analysis indicated for every dollar invested, the program produced seven in return. The largest impact was earning capacity, but Chicago kids were also less likely to need special education and less likely to commit crimes (Temple & Reynolds, 2007).

Much like with the Perry Program, the Chicago program demonstrated the relationship between early education, higher wages and crime reduction. Again it was the non-cognitive soft-skill development that made the difference. Second chance efforts like GED and job training provide fewer benefits and struggle to lift people out of poverty (Heckman & Masterov, 2007). Figure 1 illustrates the comparative return on investment among preschool programs, K-12 education, and job training programs.



**Figure 1: Rates of Return to Human Capital Investment at Different Ages:
Return to an Extra Dollar at Various Ages**



Source: Heckman, 2007

What the Perry, Abecedarian and Chicago programs show is that pre-school helps kids develop soft-skills that make it easier to gain cognitive skills later and can lead to better jobs and a higher quality of life. This in turn lessens the burden on government resources for remedial education, criminal justice and job-training programs.

Investing in human capital through access to finger-paints and story time may appear far-reaching, but multiple studies now point to

early intervention as the cheapest, most effective way to prepare kids for the workforce and reduce crime. As labor force growth wanes and the demand for skilled workers increases, these studies suggest that a pipeline that begins at pre-school has great potential to produce big benefits to society in the long run.



Addendum
Present value of Abecedarian benefits and costs per child, (2002)

	Discount Rate		
	3%	5%	7%
Program cost (net)	\$35,864	\$34,599	\$33,421
Program benefits/ Participant earnings	\$37,531	\$14,460	\$6,376
Earnings of future generations	\$5,722	\$1,586	\$479
Maternal earnings	\$68,728	\$48,496	\$35,560
K-12 education	\$8,836	\$7,375	\$6,205
Smoking/health	\$17,781	\$4,166	\$1,008
Higher education costs	-\$8,128	-\$5,621	-\$3,920
AFDC	\$196	\$129	\$85
Total benefits	\$130,666	\$72,591	\$45,793
Net present value	\$94,802	\$37,992	\$12,372

Source: Barnett, Economics of Education Review (2007)



References

- Barnett, W., & Masse, L. (2007). Comparative benefit-cost analysis of the Abecedarian program and its policy implications. *Economics of Education Review* , 113-125.
- Heckman, J. J., & Masterov, D. V. (2007). The productivity argument for investing in young children. *Review of Agricultural Economics* , 446-493.
- Heckman, J. J., Moon, S., Pinto, R., Savelyev, P. A., & Yavitz, A. (2010). The rate of return to the HighScope Perry Preschool Program. *Journal of Public Economics* , 114-128.
- Strope, R. (2013) Fiscal Note - SB 133. Missouri General Assembly, Legislative Oversight. Jefferson City: Committee on Legislative Research.
- Temple, J. A., & Reynolds, A. J. (2007). Benefits and costs of investments in preschool education: Evidence from Child-Parent Centers and related program. *Economics of Education Review* , 126-144.

ABOUT MISSOURI WONK

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