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Research Series: April 2010 The Case for Pre-K in Education Reform:

A Summary of Program Evaluation Findings

Albert Wat Project Manager, Research

Pre-K Now Pew Center on the States 901 E Street, NW 10th Floor Washington, DC 20004

202.540.6350 voice 202.552.2299 fax

www.pewcenteronthestates.org/preknow

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he short- and long-term benefits of highquality pre-kindergarten have been well documented by researchers for the last 50 years. By now, even many outside the education field have heard about the academic and lifetime gains and the significant returns on investment yielded from the High/Scope Perry Preschool Project and the Chicago Child-Parent Centers.<sup>1</sup>

What many may not be aware of, however, is that a vast and emerging body of research continues to demonstrate the potential of publicly funded, large-scale pre-k programs as a strategy for school reform and turning around a record of underachievement.

For instance, two more recent survey studies looked back at decades of early education data to capture and synthesize the body of research on pre-k efficacy. One review, published in 2000, examined 13 evaluations of state pre-k programs and found that they generally led to significant cognitive and social development among children, higher performance on achievement tests in the early grades and in some cases, reduced retention rates, producing substantial cost savings for school systems.<sup>2</sup> Similarly, a 2010 analysis of 123 evaluations determined that pre-k programs "provide a real and enduring benefit to children," which persists beyond the early elementary years.<sup>3</sup> Together with those studies featured in this brief, these results show that high-quality pre-k is an essential part of each state and the nation's efforts to improve publicly funded education as a means to have a more productive, competitive workforce for the 21<sup>st</sup> century.

### Recent Evaluations of State Pre-K Programs

Below are summaries of findings from recent, independent evaluations of existing state pre-k programs, presented alphabetically by state. Several of these studies are ongoing, so additional results will be available in the coming years.

### California

Barnett, W. Steven, Carollee Howes, and Kwanghee Jung. "California's State Preschool Program: Quality and Effects on Children's Cognitive Abilities at Kindergarten Entry." 2009.

A team of researchers from the National Institute for Early Education Research (NIEER) collected data from 207 state-funded pre-k classrooms in three demographically distinct counties in the state: Los Angeles, Fresno and Sacramento. They assessed the development of more than 1,000 children who enrolled in pre-k in 2006 and found that participation in pre-k significantly improved early literacy, language and math skills.

### Louisiana

Center for Child Development. "LA 4 Longitudinal Report." Baton Rouge: Louisiana Department of Education. 2007.

An evaluation of the *LA* 4 pre-k program by the Center for Child Development at the University of Louisiana at Lafayette shows that, at the beginning of the school year, the average early language, literacy and math skills of pre-k children in the state fall within the lowest 20 percent of the national peer group. By year's end, these children caught up to the national average.

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Based on data collected from 2002 to 2006, when compared to peers who did not participate in the program, children who attended *LA* 4:

- were as much as 36 percent less likely to be held back in kindergarten; and
- were as much as 49 percent less likely to be placed in special education through second grade.

### Michigan

Xiang, Zongping, and Lawrence J. Schweinhart. "Effects Five Years Later: The Michigan School Readiness Program Evaluation through Age 10." Ypsilanti: High/Scope Educational Research Foundation, 2002.

Malofeeva, Elena, Marijata Daniel-Echols, and Zongping Xiang. "Findings from the Michigan School Readiness Program 6 to 8 Follow up Study." Ypsilanti: High/Scope Educational Research Foundation, 2007.

The High/Scope Educational Research Foundation conducted a longitudinal study of the *Michigan School Readiness Program (MSRP)*, tracking the progress of children who entered pre-k in 1995. The study group released its first findings when the *MSRP* students finished fourth grade. At that time, versus a comparison group of their peers who did not attend the program, pre-k participants:

- passed the state literacy test at a 24 percent higher rate;
- passed the state math test at a 16 percent higher rate; and
- were 35 percent less likely to repeat a grade.

Subsequent findings were released when the participants completed eighth grade. This followup study found that, relative to the comparison group, the *MSRP* participants:

- were 33 percent less likely to have ever repeated a grade at the end of eighth grade; and
- performed equally well on the state's seventh grade reading and writing tests.

A vast and emerging body of research continues to demonstrate the potential of publicly funded, large-scale pre-k programs as a strategy for school reform and turning around a record of underachievement.

### New Jersey

Frede, Ellen, Jung Kwanghee, W. Steven Barnett, and Alexandra Figueras. "The APPLES Blossom: Abbott Preschool Program Longitudinal Effects Study (APPLES) Preliminary Results through 2nd Grade Interim Report." New Brunswick: National Institute for Early Education Research, Rutgers, The State University of New Jersey, 2009.

An evaluation of the *Abbott Preschool Program* found significant benefits for pre-k participants, especially those who attended the program for two years. Beginning in the fall of 2005, researchers followed the development of a cohort of pre-k children through second grade.

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They found that, as compared with children who did not have a pre-k experience, children who attended the program:

- showed measurable improvement in early language, literacy and math skills at kindergarten entry;
- did significantly better in math, comprehension, and vocabulary skills through second grade; and
- were 30 percent less likely to repeat a grade after one year of enrollment and 50 percent less likely after enrolling for two years.

Pre-k programs, based in both schools and centers, made significant impacts on children's cognitive development in both public schools and private provider settings.

### New Mexico

Hustedt, Jason T., W. Steven Barnett, Kwanghee Jung, and Linda D. Goetze. "The New Mexico PreK Evaluation: Results from the Initial Four Years of a New State Preschool Initiative Final Report." New Brunswick: National Institute for Early Education Research, Rutgers, The State University of New Jersey, 2009.

These results show that high-quality pre-k is an essential part of each state and the nation's endeavors to produce a highly educated citizenry for the 21<sup>st</sup> century. Researchers from NIEER investigated the impact of New Mexico's pre-k program, measuring the school readiness of pre-k attendees who entered kindergarten in 2006, 2007 and 2008. Participating children continued to benefit from the program as it expanded from an enrollment of about 1,500 to nearly 5,000. The multi-year evaluation found that, when compared to non-participants, pre-k children:

- improved substantially in early literacy and math skills; and
- increased their vocabulary skills, although, among the last group of children, the gains were not statistically significant.

The study also concluded that children in both schools and private settings made measurable and important gains.

### Oklahoma

Gormley, William, Jr., Ted Gayer, Deborah Phillips, and Brittany Dawson. "The Effects of Universal Pre-K on Cognitive Development." *Developmental Psychology* 41, no. 6 (2005): 872-84.

In 2003, Georgetown University researchers evaluated the state pre-k program in Tulsa, Oklahoma, which serves children of all income levels. They found that, compared to their peers who did not attend pre-k, program participants:

- scored significantly higher on letter-word identification, spelling and math skills at kindergarten entry;
- gained the equivalent of four to eight months' progress in the above skills as a result of their experience; and
- benefited measurably from the program, regardless of their economic background or racial group, though Latino children showed the greatest gains.

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### Endnotes

<sup>1</sup>See for example: Albert Wat, "Dollars and Sense: A Review of Economic Analyses of Pre-K," (Washington, DC: Pre-K Now, 2007).

<sup>2</sup> Walter S. Gilliam and Edward F. Zigler, "A Critical Meta-Analysis of All Evaluations of State-Funded Preschool from 1977 to 1998: Implications for Policy, Service Delivery and Program Evaluation," *Early Childhood Research Quarterly* 15, no. 4 (2000).

<sup>3</sup> Gregory Camilli et al., "Meta-Analysis of the Effects of Early Education Interventions on Cognitive and Social Development," *Teachers College Record* 112, no. 3 (2010).

### Pre-K Now at a Glance

### Mission

Pre-K Now collaborates with advocates and policy makers to lead a movement for high-quality, voluntary pre-kindergarten for all three and four year olds.

#### Vision

Pre-K Now's vision is a nation in which every child enters kindergarten prepared to succeed.

**Location** Washington, DC

### Leadership

Marci Young Project Director

#### Funders

The David and Lucile Packard Foundation The McCormick Foundation The Nellie Mae Education Foundation RGK Foundation The Schumann Fund for New Jersey

### **Pre-K Now Key Differentiators**

- Focuses exclusively on pre-k
- Provides the most up-to-date gauge of the pre-k pulse in any state
- Offers nationwide access to pre-k advocates
- Monitors and distributes daily pre-k newsclips
- Provides a national perspective on local pre-k issues
- Provides outreach, policy and Spanish-language information targeted to the Latino community
- Leads a national movement which has gained significant momentum in the last five years

#### The Case for Pre-K

- Pre-k benefits all children academically, socially and emotionally.
- High-quality pre-k for all nets a high return on investment in children and the community.
- The most important brain development occurs by age six.
- Pre-k is the first step to education reform.

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