



# INVESTING IN YOUNG CHILDREN

## Preliminary Findings of the Pauahi Keiki Scholars Program

Zijin Yang, PhD

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PASE ZERO TO EIGHT FOCUS REPORT 1

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## Purpose of Our Study

Studies show that quality education for low-income preschoolers produces lasting positive effects and high economic returns. This report highlights Pauahi Keiki Scholars (PKS), a KS program that awards scholarships to Native Hawaiian preschoolers.

## What We Learned

- The PKS program demonstrates great potential for reaching Hawaiian learners in addition to the traditional KS campus setting.
- In school year 2003–04 the PKS program awarded 318 scholarships, with an average award of \$3,900 per child.
- PKS students showed positive gains in receptive vocabulary skills—more so among three-year-olds than four-year-olds.
- PKS awards had a positive affect on the choices and decisions of Hawaiian families: about one in three parents reported they would not have enrolled their child in preschool without the PKS award, compared with one in four from the previous year.
- Survey responses suggest the need for more timely communication about enrollment deadlines.
- Overall, PKS data indicate adequate levels of teacher qualifications and parent involvement; however, only two-thirds of the schools that responded to the survey are accredited.

## Key Recommendations

- Target Native Hawaiian families with greater needs.
- Establish effective and timely communications with service providers and parents to accelerate the award process.
- Weigh the pros and cons of the new accreditation expectation required by Kamehameha Schools.



# Investing in Young Children:

## Preliminary Findings of the Pauahi Keiki Scholars Program

Zijin Yang, PhD

### INTRODUCTION

Interdisciplinary research demonstrates that environment and experience exert a powerful impact on child development. Studies have shown, for example, that a child's daily experience affects structural and functional development of the brain, such as intelligence and personality (Shonkoff and Phillips 2000; American Academy of Pediatrics 2005).

Studies on high-quality educational programs that are designed for low-income children—such as the Perry School in Michigan—confirm lasting positive effects including greater success in school, higher graduation rates, lower juvenile crime rates, decreased need for special education services later, lower adolescent pregnancy rates, and higher earning power. Further, a cost-benefit analysis of the Perry School found that for every dollar invested in the program during the early 1960s, more than eight dollars in benefits was returned to the program participants and to society as a whole (Schweinhart 1997).<sup>1</sup>

Economists calculated the internal rate of return<sup>2</sup> for the Perry School program and concluded that investment in early childhood education—if properly funded and managed—yields an extraordinary return that far exceeds that of most private and public investments (Rolnick and Grunewald 2003). When adjusted for inflation, the estimated real internal rate of return for the program is 16 percent.

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<sup>1</sup> The study converted the benefits and cost found in the study into monetary values in constant 1992 dollars discounted annually at 3 percent.

<sup>2</sup> The internal rate of return is the interest rate received for an investment consisting of payments and revenue that occur at regular periods.

A national movement to provide quality preschool programs to all children—especially those with high needs—has gained momentum in recent years. In Minnesota, discussions are underway to establish a foundation for early childhood development that would provide funding, both public and private, for well-supported and highly effective early childhood education programs (Rolnick and Grunewald 2003). Locally, the Hawai'i School Readiness Task Force published content standards to guide preschool programs in 2004. Even more recently, Governor Linda Lingle proposed a major initiative to expand and improve the early childhood education system in Hawai'i (Lingle 2005).

As one of the state's major service providers of education, Kamehameha Schools has sharpened its focus on education for young children in Hawai'i. In addition to the Kamehameha Schools Preschool program, which is known for its high quality and positive children outcomes, Kamehameha Schools also seeks alternative ways of leveraging KS resources to meet the growing demands for quality early educational opportunities in the Hawaiian community. The Pauahi Keiki Scholars (PKS) program is one of several new KS initiatives that serve Native Hawaiian children by increasing access to quality educational opportunities to low-income families. This report summarizes the preliminary findings from a recent evaluation of the PKS program and makes recommendations for future planning and implementation.

## **OVERVIEW OF PAUHI KEIKI SCHOLARS**

In 2002 Kamehameha Schools initiated the PKS program to make quality early childhood education opportunities available to more Hawaiians. The program gives scholarships to Hawaiian children enrolled in accredited or KS-approved preschool programs.

## **FINDINGS**

### **SCHOLARSHIP RECIPIENTS**

In school year 2003–04 the PKS program received 503 applications and distributed scholarships to 318 students (63 percent).<sup>3</sup> The number of children served represents a 76 percent increase over the previous year (181 recipients). This is partly because the

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<sup>3</sup> Eighteen families eventually withdrew from the program. Of the recipients, 21 families had two children in the program.

PKS program awarded scholarships to three- and four-year-olds, whereas in 2002–03 only four-year-olds were eligible.

### **COSTS**

On average, the PKS program spent about \$3,900 per child in school year 2003–04. PKS awards were based on demonstrated need, as well as the varying costs of preschool programs across the state. The smallest scholarship given was \$35 per month, while the maximum award was \$500 per month.<sup>4</sup>

### **PARTICIPATING PRESCHOOLS**

Ninety-three preschools across the state participated in the PKS program in 2003–04, a 15 percent increase over the previous year (81 preschools). Sixty-seven of the preschools are on O‘ahu, mostly near downtown Honolulu. Other participating preschools are located on Maui (12), Hawai‘i (6), Kaua‘i (6), Lāna‘i (1), and Moloka‘i (1). Based on data from the 79 schools that responded to the survey, about two-thirds of participating preschools are accredited.

### **TEACHER PROFILE**

Research demonstrates that teacher qualifications are an important indicator of preschool quality. Survey results from the PKS program show that half of the lead teachers in participating preschools have a bachelor’s degree. Of these, 83 percent majored in early childhood education. However, data analysis indicates that teacher educational attainment alone is not a determining factor of children’s test performance.

### **PARENT PROFILE**

Studies show that parental education correlates positively with a child’s school readiness. A large percentage of PKS parents had attended college. For example, 46 percent of mothers attended college at some point in their life. An additional 23 percent held a bachelor’s degree, and 10 percent held a graduate or professional degree. The average education level of PKS fathers was slightly lower than that of mothers.

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<sup>4</sup> Tuition among participating preschools ranged from \$340 to \$885 per month, with an average monthly tuition of \$484 (not including extended-day service).

Almost all parents participated in the program's required activities, such as volunteering to work at the school and attending workshops. Survey results indicate that parents were quite active and interested in their child's education.

More than half of the parents indicated that they considered the preschool their child attended as their first choice among other options. About one-seventh (15 percent) of parents reported that they would have preferred to send their child to a KS preschool, compared with 18 percent from school year 2002–03. An additional eight percent of parents reported that their child's current preschool was the only available preschool close to their home.

### **ACCESS TO PRE-KINDERGARTEN**

PKS awards had a positive affect on the choices and decisions of Native Hawaiian families: in school year 2003–04, about one in three parents reported they would not have enrolled their child in preschool without the PKS award, compared with one in four from the previous year. Comparing those who indicated they would not have enrolled their child in preschool without the PKS award with those who said otherwise, our analysis reveals, predictably, that those with fewer financial resources were more likely not to enroll without financial aid.

The most common way parents learned about PKS scholarship opportunities was by word of mouth (50 percent), followed by newspaper (19 percent) and radio ads (17 percent). Open-ended questionnaires and interviews indicated that some PKS preschool program staff and parents believe the application process and relatively late award date were barriers for potential families to apply.

### **STUDENT OUTCOMES**

Among PKS recipients, student performance varied greatly on the Peabody Picture Vocabulary Test–Third Edition (PPVT-III).<sup>5</sup> Similar to 2002–03 results, four-year-old students (N=133) had a normal curve equivalent (NCE) of 49 coming into the program. By the end of the year, their PPVT-III scores improved to an NCE of 51, which is slightly above the national average but does not represent a statistically significant increase. The

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<sup>5</sup> A total of 266 students took the pre- and posttest.

three-year-old group (N=133) started the year with an NCE of 42; by the end of the year their PPVT-III scores had improved to an NCE of 48. More details about student outcomes are available in “Evaluation of Kamehameha Schools’ Pauahi Keiki Scholar Program” (PASE Report 04-05:11).

## **RECOMMENDATIONS**

The PKS program demonstrates great potential for reaching Hawaiian learners in addition to the traditional KS campus setting. The program is in the second year of development, as Kamehameha Schools continues to refine the implementation and impact of the program. As part of the learning process, the PKS program might consider the following options.

### **SEEK GREATER EQUITY IN SUPPORT TO HAWAIIAN FAMILIES.**

Among the families currently served by the PKS program, parents have a fairly high level of educational attainment. For example, one in three mothers has a bachelor’s or graduate degree, and more than three-fourths of all PKS mothers have had some college experience. However, families with lower educational levels account for only a small proportion of the program participants (21 percent). The program may want to increase focus on achieving a more equitable distribution of support to families with less educational attainment.

### **ACCELERATE THE AWARD APPROVAL PROCESS.**

It is vital to notify families well before enrollment deadlines. Timely notification will allow applicants—especially low-income families who may be considering daycare options or preschools outside the PKS program network—to consider a broader range of quality preschools for their keiki.

### **ANTICIPATE RAMIFICATIONS OF THE NEW ACCREDITATION REQUIREMENT.**

Beginning in school year 2005–06, Kamehameha Schools plans to require that all participating PKS preschools be accredited. Such a change may affect potential beneficiaries in certain areas where accredited preschools are unavailable, especially for Hawaiian children in rural or remote areas. Furthermore, some Hawaiian immersion preschools—which serve a high proportion of Hawaiian learners—are not currently

accredited. Weighing the pros and cons of the accreditation requirement may require further discussion and analysis.

### **FOCUS ON COMMUNICATION.**

Communication between the PKS program and participating preschools has improved during the program's second year. However, survey responses suggest there is still room for improvement, particularly in communicating with prospective families. For example, an emerging program such as Hi'ilani, which will serve prenatal to two-year-old children and families, could play a role in disseminating PKS information to potential applicants.

### **CONCLUSION**

Given the evidence to date, there is little doubt that early childhood education has a powerful influence on a child's educational outcomes. For children from low-income families, the benefit of attending a high-quality preschool is especially compelling.

It will take several years of data collection and research to determine the net return of initiatives such as the PKS program. However, our preliminary findings suggest that the resources invested by Kamehameha Schools have a positive impact on the short-term academic gains of children served by preschool programs in Hawai'i. The success of the PKS program—as well as other initiatives focused on keiki from birth to eight years old—will largely depend on developing a clearer understanding of the target audience, forging stronger partnerships with state and community stakeholders, offering more choices for quality preschool experiences, and establishing effective and timely communications with service providers and parents.

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