

## **Do teacher qualifications matter for Florida's investment in Pre-K?**

W. Steven Barnett, National Institute for Early Education Research

Support for public financing of early childhood education is justified by contributions of those programs to children's early learning and development—cognitive, social, and emotional—and the later consequences to those early gains.<sup>1</sup> Research has found long-term increases in achievement test scores and educational attainment, reductions in grade repetition and special education, and lower rates of behavior problems, delinquency, and crime. Based on these findings, benefit-cost analyses have concluded that highly effective preschool education can be a sound public investment.<sup>2</sup>

These results depend on preschool programs delivering an effective education, and all of the programs that produced large long-term gains and have been found cost-effective had well-educated, adequately paid teachers. Nevertheless, some now claim that teacher qualifications don't matter in pre-K.<sup>3</sup> However, none of these claims are backed up by experiments or strong studies where teacher qualifications are systematically varied to see what happens. Instead they are based on weak statistical studies using methods that are quite questionable.<sup>4</sup> This is unfortunate because if children can be educated just as effectively with cheaper methods then the taxpayers can be made better off, but if cheaper methods fail to produce the promised gains in learning and economic benefits the taxpayers will be much worse off with such programs.

Fortunately, there is evidence about the role of teachers that comes comparing programs that differ in their teacher qualifications and pay because of policy mandates. Table 1 compares the learning gains for three programs: universal pre-K delivered by the Tulsa Public Schools (TPS), universal pre-K delivered by Tulsa Head Start (THS), and the national Head Start (NHS) program.

The national Head Start results are the effects of one year of Head Start rigorously estimated for 2003.<sup>5</sup> At that time 31% of Head Start teachers had a BA, 27% had an AA degree, and 43% had lesser qualifications.<sup>6</sup> The average teacher salary was \$23,564, half the average salary in the public schools that year. Head Start was found to have very modest effects on children's learning especially for broad conceptual knowledge and mathematics. The effects in Table 1 can be viewed as percentages of the achievement gap between poor children and others. Thus, Head Start closed about 10% of the achievement gap in math, more in literacy. For national Head Start there is a second set of estimates in parentheses that are adjusted for crossovers (e.g., a few children not assigned to Head Start ended up getting into the program at another location) and other program participation (e.g., some children go to child care). This second set is slightly higher.

Table 1 presents results on the same outcome measures for one year of preschool education provided by the Tulsa public schools and by Tulsa Head Start. The Tulsa Head Start program differs from national Head Start in that it uses teachers with BA degrees paid for by the public schools. Otherwise it is the same as Head Start elsewhere. As can be seen Tulsa Head Start substantially outperforms Head Start nationally on all measures of achievement. Tulsa Head Start also produces gains in mathematics equal to those produced by the Tulsa public school pre-

K. However, Tulsa Head Start is less effective than the Tulsa public schools in language and literacy. Why is there this difference? It seems likely that disadvantaged children also learn language and literacy skills from attending school with more advantaged children. This happens in the Tulsa public schools because the program is universal. However, Tulsa Head Start must follow national Head Start guidelines for income eligibility even though its teachers are provided by Oklahoma’s universal preschool program.

There are clear lessons from these comparisons for Florida’s pre-K program. Florida is already positioned to obtain the gains from universal enrollment on classroom composition, but it has yet to put in place a requirement for well-educated and adequately paid teachers. With this modest additional investment, Florida could substantially boost the learning and development of its young children.

**Table 1. Achievement Gains for Tulsa Public Schools (TPS), Tulsa Head Start (THS, public school teacher), Head Start (NHS)**

	<u>TPS</u>	<u>THS</u>	<u>NHS (adj.)</u>
Math	36%	37%	10% (15%)
Print	99%	51%	22% (26%)
Spelling	74%	33%	16% (18%)

Effects as percentage of achievement gap (1 sd). \*Head Start estimate adjusted for crossovers.

## Notes and References

- <sup>1</sup> Barnett, W. S. (1998). Long-term effects on cognitive development and school success. In W. S. Barnett & S. S. Boocock (Eds.), *Early care and education for children in poverty: Promises, programs, and long-term results* (pp. 11–44). Albany, NY: SUNY Press.
- <sup>2</sup> Barnett, W. S. (2002). Early childhood education. In A. Molnar (Ed.), *School reform proposals: The research evidence* (pp. 1-26). Greenwich, CT: Information Age Publishing; Camilli, G., Vargas, S., Ryan, S., & Barnett, W. S. (in press). Meta-analysis of the effects of early education interventions on cognitive and social development. *Teachers College Record*.
- <sup>3</sup> Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., et al. (2008). Measures of classroom quality in prekindergarten and children’s development of academic, language, and social skills. *Child Development*, 79(3), 732-749.
- <sup>4</sup> Rothstein, J. (2008). *Teacher quality in educational production. Tracking, decay, and student achievement* (NBER Working Paper No. 14442). Cambridge, MA: National Bureau of Economic Research; Rothstein, J. (2009). Student sorting and bias in value added estimation: Selection on observables and unobservables (NBER Working Paper No. 14666). Cambridge, MA: National Bureau of Economic Research.
- <sup>5</sup> Puma, M., Bell, S., Cook, R., Heid, C., Lopez, M., Zill, N., et al. (2005). *Head Start impact study: First year findings*. Washington, DC: US Department of Health and Human Services, Administration for Children and Families.
- <sup>6</sup> Hart, K., & Schumacher, R. (2005). Making the case: Improving Head Start teacher qualifications requires increased investment. *CLASP Policy Paper*. Washington, DC: Center for Law and Social Policy.