

## Title

Cost Effectiveness of Preparation Options

## Questions Addressed

- What is the cost of preparing special educators through AR, and how does it compare to the cost of traditional routes
- How can a state best invest its training resources to maximize supply of special education teachers?

## Investigators

### *Co-Principal Investigators*

Paul T. Sindelar, Ph.D.  
Director, Center on Personnel Studies in Special Education  
University of Florida  
G-315 Norman Hall  
Gainesville, FL 32611-7050  
[pts@coe.ufl.edu](mailto:pts@coe.ufl.edu)  
(352) 392-0701 (x255)  
(352) 392-2655 (fax)

Michael S. Rosenberg, Ph.D.  
Department of Special Education  
Johns Hopkins University  
100 Whitehead Hall  
3400 N. Charles Street  
Baltimore, MD 21218-2680  
[mrose@jhu.edu](mailto:mrose@jhu.edu)  
(410) 516-8275  
(410) 516-8424 (fax)

### *Subcontractor: Bureau of Economic and Business Research, Univ. of Florida*

David Denslow, Ph.D.  
Distinguished Service Professor  
Warrington College of Business Administration  
Department of Economics  
University of Florida  
Gainesville, FL 32611  
[denslow@ufl.edu](mailto:denslow@ufl.edu)  
(352) 392-0171 (x340)

James Dewey, Ph.D.  
Research Economist  
Bureau of Economic and Business Research  
University of Florida  
Gainesville, FL 32611  
[JimD@bebr.ufl.edu](mailto:JimD@bebr.ufl.edu)  
(352) 392-0171 (x339)

David Lenze, Ph.D.  
Research Economist  
Bureau of Economic and Business Research  
University of Florida  
Gainesville, FL 32611  
[davidl@bebr.ufl.edu](mailto:davidl@bebr.ufl.edu)  
(352) 392-0171 (x214)

## **Description of the Study**

Although several studies of the cost effectiveness of teacher preparation options have been conducted (Darling-Hammond, 2001; Denton & Smith, 1985; Fowler, 2003; Lewis, 1990; Rice & Brent, 2002), none has focused specifically on the preparation of special education teachers. The early studies were designed to address institutional issues. For example, Denton and Smith compared costs of two programs at one institution, one for education majors and a shortened version for liberal arts students. Lewis studied the feasibility of a post-baccalaureate program, focusing on the opportunity costs to participants of delaying training and entry to the profession. Darling-Hammond was the first to estimate costs of different program prototypes. She compared 4-year and 5-year traditional programs and fast track alternative routes using estimates of cost and attrition rates available in the literature. She reported that 3 years out, 5-year programs were most cost efficient and that despite higher initial costs even 4-year traditional programs were more cost effective than alternative routes.

Rice and Brent (2002) and Fowler (2003) both studied specific programs, the former Pathways to Teaching and the latter the Massachusetts Signing Bonus Program for New Teachers. Pathways to Teaching provides support to Peace Corps retirees, non-certified teachers, and paraprofessionals as they complete traditional, university based teacher preparation programs (and thus may be considered alternative only by virtue of the trainee populations it serves). Eight different sites were studied, and high and low cost estimates were reported separately for public and private institutions, and for retirees and non-certified teachers, on the one hand, and paraprofessionals, on the other. This study is notable for standardizing cost estimates and for using a detailed budget template. The Massachusetts Signing Bonus Program for New Teachers is an offshoot of Teach for

America, in which “high achieving candidates” received \$20,000 for entering the program and persisting in the profession. Also like Teach for America, the program is fast track, requiring only 7 weeks of training before entering the classroom. Fowler estimated that the state had invested over \$900,000 in 74 trainees who had left the field, a per capita cost of roughly \$12,450.

Fowler’s per capita cost estimate for this fast-track program was similar to Rice and Brent’s low estimates for Pathways programs at public institutions, which were \$7,380 to \$14,814 for Peace Corps and paraprofessional students. All other estimates exceeded Fowler’s. Taken together, these findings are consistent with Darling Hammond’s, who reported that initial costs were substantially greater for traditional 4-year programs than fast-track alternatives (and greater still for 5-year programs). Nonetheless, after factoring in the effects of attrition, Darling Hammond judged traditional programs to be more cost effective than alternatives.

No one has studied the cost effectiveness of special education teacher preparation options, and no one has considered alternative routes except the fast track routes studied by Darling-Hammond and Fowler. Given the recent proliferation of alternative route options (Rosenberg & Sindelar, 2001), the need to estimate the costs of various training options is great. This study advances existing literature by focusing on special education teacher preparation and by considering training alternatives other than fast track routes. Its ultimate purpose is to develop a marketplace model of special education teacher supply and demand to guide policy makers as they allocate training resources among preparation alternatives.

Cost estimates will be reported for various preparation prototypes, identified on the basis of findings from a separate COPSSE study in which alternative route programs were catalogued and analyzed. Estimates of attrition and teacher quality were derived from both this CEC indexing study and from estimates available in the literature.

Findings from this study will help us identify the need for better estimates of model parameters. In its simplest form, the model describes a function that relates supply of special education teachers to wages. In this simple model, shortages may be addressed by increasing wages—often a politically untenable solution—or by supplementing the supply of teachers willing to work at current wages. To supplement supply, training alternatives must tap new populations of trainees, suggesting that one important criterion by which a training alternative must be judged is its unique contribution to supply. A second important consideration for preparation alternatives is maintaining workforce quality. It seems

unlikely that supply can be supplemented at current wages without a loosening of entry requirements.

Other variables must be factored into the model, notably teacher quality and attrition/retention. Attrition influences teacher supply at both the time of program completion (when some prospective teachers choose not to enter the field) and during the first several years of teaching, when novices are most vulnerable to leaving. To assess cost effectiveness, the proportions of trainees who enter and remain in teaching both must be estimated. Furthermore, assessments of beginning teacher quality—performance on state licensure tests, supervisors' ratings, etc.—would allow for further differentiation based on benefit to students.

## Related Research

Darling-Hammond, L. (2000). *Solving the dilemmas of teacher supply, demand, and standards: How we can ensure a competent, caring, and qualified teacher for every child*. New York: National Commission on Teaching and America's Future.

Denton, J. J., & Smith, N. L. (1985). Alternative teacher preparation programs: A cost-effectiveness comparison. *Educational Evaluation and Policy Analysis*, 7, 197-205.

Fowler, C. R. (2003). The Massachusetts signing bonus program for new teachers: A model of teacher preparation worth copying? *Education Policy Analysis Archive*, 11(13), 1-24.

Lewis, D. R. (1990). Estimating the economic worth of a 5<sup>th</sup> year licensure program for teachers. *Educational Evaluation and Policy Analysis*, 12, 25-39.

Rice, J. K., & Brent, B. O. (2002). An alternative avenue to teacher certification: A cost analysis of the pathways to teaching careers program. *Journal of Education Finance*, 27, 1029-1048.

Rosenberg, M. S., & Sindelar, P. T. (2001). *The proliferation of alternative routes to certification in special education: A critical review of the literature*. Arlington, VA: The National Clearinghouse for Professions in Special Education, The Council for Exceptional Children. Available: [www.special-ed-careers.org](http://www.special-ed-careers.org).

## Workplan

1. Develop general analytical framework for (a) classifying and measuring costs and (b) evaluating net benefit of a preparation program.
2. Analyze existing cost data, including preparation and turnover costs, and estimates of output, most notably unique contribution to supply.
3. Analyze AR indexing study to determine range of representative program types.
4. Analyze Title II data for preparation and turnover costs, and output measures, most notably unique contribution to supply.
5. On the basis of these data, develop quantitative model of the special education teacher marketplace.
6. Identify areas in which additional information is needed most, rank them in terms of importance and the feasibility with which the data may be obtained, and develop plan for this line of inquiry in the future.

### **Timeline**

The initial subcontract to the Bureau of Economic and Business Research was issued in March 15, 2005. Two reports are nearing completion and are due in draft form on June 15, 2005: a description of the Cost Effectiveness Model and an economic analysis of teacher preparation program design.