

Research Brief

The Costs and Benefits of a Comprehensive Induction Program

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Even when educational administrators acknowledge the growing evidence that comprehensive induction programs produce positive outcomes for beginning teachers during their first two years in the profession, they often balk at the cost of such programs. Offered the option of a form of induction support that is less demanding on resources, maybe one that uses in-school mentors with no release time and little training, administrators may decide on the less costly alternative because they have no information about the potential returns on investment of different kinds of mentoring programs. If they had such information, they may make a different decision. In the same way, legislators could benefit from understanding the potential returns on such educational investments, since it is often a financial justification that is ultimately needed to pass costly reforms.

Until now there have been no benefit-cost studies of mentoring programs for beginning teachers to provide legislators, educational administrators, and program leaders with the kind of economic information they need for informed decision making. In a benefit-cost analysis we estimate the financial benefits of a given course of action against the actual costs, and use the resulting balance to guide decision making. Costs are either one-time, or may be ongoing. Benefits are most often received over time. In its simple form, benefit-cost analysis is carried out using only actual financial costs and financial benefits. A more sophisticated approach attempts also to put a financial value on intangible costs and benefits, a process that can be highly subjective.

In order to provide an estimate of the potential return on the investment in a comprehensive mentoring program for beginning teachers we collected actual cost data for the Santa Cruz New Teacher Project across all its local contexts,

calculated the measured benefits, assigning them a monetary value where possible, and computed the net present value over five years. We looked at net benefits or costs from multiple perspectives: the state, the district, the school, the teacher, and the student. The total of all these represents the net benefit or cost to society.

We included all major and minor costs in the analysis, including Personnel, Indirect Costs (Facilities, Equipment & Materials), Program Inputs (such as room rental and substitute teachers) and Client inputs (such as teachers' personal time). As can be seen in Table 1, 'Total Ingredients Costs' for a district project supporting 119 new teachers are approximately \$786 thousand, representing a per teacher cost of \$6,605. Disaggregated by the funding constituencies, the district pays about \$274 thousand (35%), the state pays about \$436 thousand (56%) through the BTSA program, and the remaining \$76 thousand, 9%, come from time inputs imposed on new teachers and site administrators as part of implementing the program.

In assessing benefits, we included potential savings to districts and teachers on increased teacher retention, potential benefits to the state and district

Table 1: Summary of Costs of a Comprehensive Induction Program for One District

	Project Cost	District Cost	State BTSA Cost	Teacher & Principal Costs
Personnel	623,084	240,250	382,834	
Indirect Costs	51,170	19,730	31,440	
Program Inputs	35,581	13,719	21,862	
Client Inputs	76,181			76,181
Total	786,016	273,699	436,136	76,181
Per teacher costs	\$6,605	\$2,300	\$3,665	\$640

from increases in new teacher effectiveness, and the time saving to principals for having to monitor beginning teachers less. Using historical retention data from teachers who had been in the program, we compared these to published state and national data in order to estimate the benefits added by the comprehensive induction program. We analyzed the student test score data for all teachers in the district over five years, computing the value-added gains for new teachers and comparing them to those of experienced teachers who had not previously been in the program. This analysis demonstrated that first- and second-year teachers were as effective as fourth-year teachers on average, sans the induction program. By looking at the salary differential we could monetize this apparent benefit afforded by the induction program. The benefits are displayed in Table 2.

Table 2: Summary of Benefits of a Comprehensive Induction Program for One District

	State	District	New Teachers	Students
Preliminary credential cost savings			3,394	
Recruitment and Orientation Savings		3,736		
Induction Cost Savings	762	479		
BT Increased Effectiveness	6,318	3,965		
CLEAR Credential Tuition Savings			54	
Student benefit from Having an effective teacher				1,926
Principal time savings		908		
Total	\$7,080	\$9,088	\$3,448	\$1,926
TOTAL Benefit to Society \$21,542				

When costs and benefits are computed over five years (costs are incurred only in the first two years, but benefits continue to accrue), we are able to provide the net present value of the program to each interested constituent. These numbers are displayed in Table 3.

Subtraction of per-teacher costs of about \$13,000 from the benefits of almost \$21,500 shows each investment in a new teacher yields returns a little over \$8,500 per teacher after five years. The present study suggests that increasing teacher effectiveness provides far greater benefits (47%) than does simply reducing teacher attrition costs (17%). When each constituency is taken to account, the returns on time and program resources expended show that all four groups—students, new teachers, districts and the state—all benefit from the investment in comprehensive induction. Students, who invest not a dollar, proportionally benefit the most,

Table 3: Costs, Benefits, and Marginal Returns for One District

Constituency	Costs	Benefits	Marginal Return on \$1
Student	\$0	\$1,926	
New Teacher	\$953	\$3,448	\$3.61
District	\$4,813	\$9,088	\$1.88
State	\$7,189	\$7,080	\$0.98
Society	\$12,955	\$21,542	\$1.66

followed by new teachers who earn a return of \$3.61 per dollar, and the district at \$1.88 per dollar invested. Even the state manages to recoup 98 cents on the dollar from its original investment. When costs and benefits are summed up for society the program secures a return of \$1.66 for every dollar invested after five years. Clearly this type of educational investment is a winner from all perspectives.

Most discussions of induction benefits and costs focus on the savings from reduced turnover to justify program investments (see Fuller, 2000). By measuring the full range of benefit streams accruing to induction, we were able to demonstrate that induction returns extend far beyond mere retention questions. The influence on new teacher practice is by far the most important benefit and potentially extends farther if we consider the benefits to children assigned to effective teachers over the course of their K–12 careers.

While we valued as many theoretical effects from the program as possible, we could not include those that accrue far into the future. For example, assignment benefits to students were limited to two years, but properly analyzed, could extend out to include valuations on increased access to colleges and universities, or on increased earnings by the time the students are ready to join the work force. Another item not valued in this design is the benefit represented by a fully trained mentor returning to the classroom. It is highly likely that the mentoring experience adds value to the teaching skills and raises the pedagogical level of the veteran teacher. Nonetheless, we captured what we believe is the most important impact of new teacher induction, the change in classroom practice and its effect on students. For a full list of theoretical benefits please refer to the full paper.

While mentoring programs for beginning teachers have become more visible during the past ten years, no rigorous analysis, to our knowledge, has been performed to assess the potential return on investment for such programs. The analysis described here provides educational decision-makers, either at school, district or policy levels, with information to initiate similar discussions of their own programmatic efforts that may guide them in spending education dollars.