

# RESEARCH BRIEF

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August | 2009

## The Past, Present, and Future of Comprehensive School Reform

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### Introduction

The last major review of the achievement outcomes of comprehensive school reform (CSR) models was conducted in 2003. It concluded the following:

- The overall evidence base supporting CSR was emerging and still quite limited.
- Many studies were biased because they did not include control groups and they were conducted by the CSR developers themselves.
- Several CSR models had accumulated particularly strong evidence that they were capable of improving achievement across a variety of school contexts.

Despite the growing evidence base supporting CSR, the program was discontinued by the federal government in 2007. Now, six years after the 2003 meta-analysis, the study's lead author, Geoffrey Borman, Ph.D., revisits

the results and interprets how the policy and research landscape has evolved over the years.<sup>1</sup>

### The Study

Borman, G. D., Hewes, G. M., Overman, L. T., & Brown, S. (2003). Comprehensive school reform and achievement: A meta-analysis. *Review of Educational Research*, 73, 125–230.

### Methodology

In 2003, Geoffrey D. Borman and colleagues published a comprehensive review of all known studies of the achievement effects of the 29 most widely implemented CSR models. The meta-analysis allowed the researchers to summarize quantitatively all information about the effectiveness of the use of CSR models as a national policy option for raising achievement. This study was particularly salient, given the premise of the

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<sup>1</sup> *Editor's note:* Funding for the Comprehensive School Reform Program began with federal appropriations in 1998. The program was signed into law as Title I Part F of the Elementary and Secondary Education Act, as reauthorized by the No Child Left Behind Act of 2001. Federal allocations were made to states that, in turn, funded local education agency (LEA) grant applicants. The aim of the program was to “provide financial incentives for schools to develop comprehensive school reforms, based on scientifically based research and effective practices that include an emphasis on basic academics and parental involvement so that all children can meet challenging State academic content and academic achievement standards” (Title I, Part F, Section 1601). LEAs were permitted to adopt an externally developed model or develop their own based on 11 required components.

now-discontinued federal CSR program to fund schools' implementations of only those reform models having rigorous evidence of effectiveness. The 2003 meta-analysis provides needed insight into the outcomes of this federal program. The researchers' preliminary analysis accomplished the following:

- Characterized the overall quality of the research evidence.
- Empirically identified and quantified the potential methodological biases in the literature.
- Revealed the common characteristics of CSR programs that made a difference in terms of student achievement outcomes.
- Explored differences in achievement effects associated with varying contexts (e.g., the grade level and the subject area targeted by the reform, and the poverty level of the school implementing the reform).

After characterizing the overall CSR research base and empirically identifying its potential methodological biases, the researchers' second objective was to assess the effectiveness of each of 29 CSR models. The question of effectiveness was addressed by focusing on only the subgroup of studies that provided the best evidence for evaluating the effects of each of the CSR models.

## In Brief

After completing their review, the researchers came to several key conclusions regarding: (a) the quantity and quality of the research supporting CSR; (b) the overall "policy effect" of the federal government's CSR program; (c) variations in the achievement effects of CSR models across different types of schools and contexts; and (d) a determination of which of the 29 models, in particular, appeared to hold the most promise for improving student achievement. Below, the key findings are summarized, and lead researcher, Borman,

discusses how the more recent research and policy over the past six years has informed the current knowledge base for CSR.

First, in 2003, CSR was still an emerging field. Some models were at an early stage of program development that had not yet demanded third-party evaluations and more costly and difficult control-group studies. Nevertheless, there were clear limitations on the overall quantity and quality of studies supporting the achievement effects of many of the 29 models reviewed. More than 40 percent of the analyses of CSR effects were nonindependent evaluations that had been performed by the developers, and only about half of the analyses used some type of control group. Only seven studies of three CSR models (about 3 percent of all studies of the achievement effects associated with CSR) had generated evidence from that which researchers term the "gold standard" of causal inference, the randomized experiment. These limitations were important, because Borman and his colleagues concluded that evaluations of the models that were performed by the developers themselves and that did not use control groups were prone to potential biases that seemed to inflate the estimates of the models' effects.

Second, Borman and his colleagues found that the overall effects of CSR models were statistically significant and meaningful, and they appeared to be greater than the effects of other interventions—such as Title I targeted assistance and schoolwide programs—that have been designed to serve similar purposes and student and school populations. Overall, students from CSR schools could be expected to score one eighth of a standard deviation, or 2.5 normal curve equivalent (NCEs), higher on achievement tests than control students in non-CSR schools. These overall effects, though, were highly variable and should be viewed as averages found across a wide array of reform models and schools that were evaluated in a variety of ways. The overall effect size is a good indicator of the expected effects of CSR across a large number of schools. Policymakers may expect to find CSR effects of about 2.5 NCE points in similar studies of national or large districtwide samples of CSR

schools. But the effects for individual schools and the effects for individual reform models are likely to vary.

Third, the authors found that substantial differences in the effectiveness of CSR models were largely a result of program-specific and school-specific differences in implementation. One important factor was the number of years that the reform had been implemented. In those schools implementing CSR models for five years, achievement effects were twice as large as the overall effect of 2.5 NCEs; these effects were even greater for schools with longer implementation histories. In addition, the choice of the CSR model itself was the source of a great deal of variation in the effectiveness of CSR. Interestingly, though, the 11 federally mandated components of CSR and the poverty level of the school had little to do with the effectiveness of the programs. That is, regardless of which of the 11 federally defined components of a CSR model that a school chose to emphasize in its implementation and regardless of the poverty context of the school, the achievement outcomes remained very similar. The fidelity and duration of implementation of any model was more related to outcomes than the particular model, model component, or school poverty level.

Finally, the three programs meeting the highest standard of evidence—Direct Instruction, the School Development Program, and Success for All—were the only CSR models to have clearly established, across varying contexts and varying study designs, that their effects were relatively robust and that the models, in general, could be expected to improve students’ test scores. The outcomes varied considerably by reform model. In most cases, however, the research base for each CSR model was too small to generate reliable estimates of the model’s expected effects. In some cases, promising and highly promising models were beginning to emerge. Expeditionary Learning Schools Outward Bound, Modern Red Schoolhouse, and Roots & Wings were all on the brink of establishing strong research bases. The models meeting the standard for the “Strongest Evidence of Effectiveness” category were distinguished from

these models and others by the quantity and generalizability of their outcomes; the quality of this evidence (for instance, six of the seven randomized experiments and many high-quality quasi-experimental control-group studies have been conducted on the models achieving the highest standard of evidence); and the statistically reliable effects on achievement.

## CSR Research and Policy Since 2003

Since 2003, education research and policy stakeholders have remained committed to the idea of promoting the use of rigorous methods—most notably randomized trials—for establishing the effectiveness of educational programs and practices. Through a variety of federal initiatives, including No Child Left Behind (NCLB), the former Reading First program, and the establishment of the Institute of Education Sciences (the research arm of the U.S. Department of Education), evidence-based education policy has flourished. However, the CSR program—once one of the most prominent efforts to link research to practice—has not been supported by the federal government, politically or fiscally, since 2007.

Overall, the former federal CSR program had somewhat modest effects on achievement. However, this situation has frequently been the case with large federal education programs, including Title I, Reading First, Supplemental Educational Services, and others. There is now compelling evidence, though, that *particular* CSR models are effective for improving student achievement. A growing number of sources for systematic reviews of policies and programs affecting children exist, including the Campbell Collaboration, the What Works Clearinghouse, the Best Evidence Encyclopedia, and the Coalition for Evidence-Based Policy.

The 2003 meta-analysis of CSR programs and these more recent compendia of research evidence have identified a number of models with rigorous evidence of success, such as Accelerated Schools, Career Academies, Direct

Instruction, School Development Program, Success for All, and Talent Development High Schools.<sup>2</sup> With the continued federal focus on research-based solutions for improving America's schools and the expanding number of CSR models with evidence of effectiveness, why has CSR so abruptly fallen out of favor?

On the face of it, the discontinuation of the federal CSR grant program—which allocated as much as \$300 million to support school reform during 2002—was a major blow to the CSR movement. However, this loss of funds did not necessarily represent the death knell for CSR. Schools with concentrations of poor children are able to garner sufficient resources to implement CSR models by reallocating existing supplemental funds and personnel from federal Title I programs, state poverty supplements, special education, and other sources. In this way, many high-poverty schools can afford even the most costly CSR models by trading in their largely remedial approaches of the past, most often represented by federal and state Title I programs, for new designs that will enable them to implement research-based schoolwide reform programs. This method of resource reallocation can make implementations of CSR programs essentially “costless.”

<sup>2</sup> These compendia of research evidence on various school-based programs and practices can be found on the Internet at the following locations: <http://www.campbellcollaboration.org/> (Campbell Collaboration); <http://ies.ed.gov/ncee/wwc/> (What Works Clearinghouse); <http://www.bestevidence.org/> (Best Evidence Encyclopedia); and <http://www.evidencebasedprograms.org/static/index.htm> (Coalition for Evidence-Based Policy).



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## Bottom Line

In terms of increased student achievement, CSR appears to: (a) have an overall positive effect; (b) be effective whether a school is relatively lower or higher on poverty measures; (c) increase its effectiveness for an individual school the longer it is implemented there; (d) include a variety of models, with a number of them generating strong evidence of effectiveness over the years; and (e) depend for its effectiveness more on program implementation than on whether it contains a predetermined set of federally required components. Schools and district continue to employ a number of CSR models and fund them with Title I and other monies.

CSR models can help turn around school performance in even the most challenging contexts. For this policy option to have its strongest impacts, school leaders must carefully select a CRS model with strong evidence of effectiveness, be resourceful in finding sufficient fiscal support to sustain the reform, work hard to implement the design as intended, and stick with it for at least five years.

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