A Study of the Sustained Effects of Comprehensive School Reform Programs in Pennsylvania

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Abstract

The general purpose of this study is to present post-funding Comprehensive School Reform (CSR) data to address the more lasting features of CSR programs, their relation to the No Child Left Behind Act (NCLB) and support of its requirements, and the impact of CSR on student achievement. For the schools included in this study, many of the components of CSR are continuing to be implemented, and the majority of the schools continued to implement the specific CSR model, suggesting that CSR was sustained in many sites. In terms of student achievement, the implementation of CSR was associated with enhanced student achievement for this set of schools, and the student achievement results had improved over the past four years in most schools. In general, the schools felt that CSR had helped the schools implement effective practices and programs, one of the major goals of NCLB.

Key Words: comprehensive school reform, sustained effects, No Child Left Behind Act, program implementation, student achievement

Introduction

The United States Department of Education (2002) offers some guidance in the definition of Comprehensive School Reform by referring to the legislative components of the program that, when systematically implemented, will lead to "scientifically based" educational practices. These components include,

for example, high quality professional development, measurable goals and benchmarks, meaningful parent involvement, external support and technical assistance, and proven methods for learning and instruction. Since the inception of the Comprehensive School Reform Demonstration Program, about $770 million has been provided to approximately 3,000 schools across the nation implementing Comprehensive School Reform models. The program, now entitled the Comprehensive School Reform (CSR) Program, was reauthorized in the No Child Left Behind Act (Part F, Title I of P.L. 107-110).

While CSR appears to be expanding rapidly in terms of the number of schools adopting programs, there are still unresolved issues relating to the initial groups of schools that received funding. Funding began in 1998-99 and those schools were typically funded for a three-year cycle, which would have ended at the conclusion of the 2000-01 school year; thus, they would have completed their second year of "post-implementation" CSR funding in the 2002-03 school year. The unanswered questions of CSR pertain to the extent to which those schools (1) are continuing to implement CSR models, and (2) have experienced sustained effects related to the models, particularly in terms of student outcomes. The general purpose of this study is to present post-funding data results to address the more lasting features of CSR programs, their relation to NCLB and support of its requirements, and the impact of CSR on student achievement.

Background

In one comprehensive evaluation of CSR programs, the RAND Corporation reported mixed results (Berends, Kirby, Naftel, & McKelvey, 2001; Viadero, 2001). In the 163 CSR schools included in the study, about one half showed greater improvements in both mathematics and reading achievement than the district did overall. The findings in this report showed that schools varied greatly in the degree to which they had implemented CSR programs. The CSR program was highly implemented in only about one half of the schools where implementation levels were examined. Additionally, the findings seemed to indicate that CSR programs were more highly implemented and more effective relative to student outcomes at smaller schools and in elementary schools.

The notion of degree of program implementation is crucial to the evaluation of CSR programs. Some studies (see, e.g., Datnow, Borman & Stringfield, 2000) have stressed the fact that the quality of the implementation is a significant factor and has a substantial impact on the success or failure of CSR reform models. Other researchers (Stringfield, Millsap & Yoder, 1997) have found a strong, positive relationship between the degree of program implementation

and program outcomes. Certainly, the inclusion of degree of implementation findings in evaluations lends credibility to the interpretation of program impact on outcomes, such as student achievement, and can provide further insight as to program-specific and school-specific differences in implementation.

In another comprehensive evaluation of CSR, Borman, Hewes, Overman and Brown (2003) conducted an exhaustive meta-analysis to examine the general effectiveness of the CSR strategy, the effects associated with CSR, and differences with respect to methodological and contextual features. They found that there were different standards of evidence for model effectiveness in terms of actually improving test scores and that the number of years of model implementation had very significant implications for understanding CSR impact on achievement. In particular, they noted the strong effects of CSR beginning with the fifth year of model implementation. Overall, the study found that the effects of CSR were statistically significant and meaningful relative to the student populations served.

The results of previous studies of CSR in Pennsylvania also suggest that implementation of CSR in some schools does enhance student outcomes, namely student achievement scores (McCray, Evans, & Sheffer, 2002). A follow-up study of a small sample of CSR schools in the School District of Philadelphia, designed to examine how changes in student achievement compare to schools not receiving CSR funding, indicated that although Philadelphia CSR schools demonstrated increases in student achievement scores during the funding period, the rate of this increase did not differ significantly from that of the district as a whole (McCray, Evans, Clark, Offenberg, & Molock, 2002). It should be noted, however, that in terms of school context, it has been reported (Desimone, 2002) that in high-minority, low-achieving urban schools, systemic problems such as mobility and lack of capacity can hinder successful CSR implementation.

The current study builds on the professional literature reported to date, particularly those efforts conducted in Pennsylvania. In examining the post-funding stage of program development and implementation, the study attempts to identify the more lasting effects of CSR. In determining the sustained effects that may be associated with CSR, the results of this study focus first on degree of implementation and then on an analysis of student achievement.

CSR Implementation

The data reported in this study were obtained from a total of 96 sites in 78 schools in Pennsylvania (achievement testing occurred in more than one grade level at certain schools). These schools started their funding cycle at the

beginning of the 1998-99 school year; their funding ended at the conclusion of the 2000-01 school year. A team of consultants from the Pennsylvania Department of Education (PDE) gathered post-funding data. The intent of the monitoring effort was to determine the aspects of CSR that were still being implemented, the degree to which the original CSR model was still in place, and the approach the school was taking with respect to NCLB requirements. The implementation data were gathered during site visits to each of the 78 schools during April-June of 2003.

The 78 schools included in this study represented 19 districts across the state; more than one-half of the schools, 45, were from Philadelphia School District (large metropolitan district serving approximately 215,000 students). The 45 CSR schools in the School District of Philadelphia consist of 28 elementary schools (62%), 10 middle schools (22%), and 7 high schools (16%). The remaining 33 Pennsylvania schools consisted of 25 elementary schools (76%), 4 middle schools (12%), and 4 high schools (12%) in smaller metropolitan districts and rural areas. A total of 36 different CSR models were implemented: *Community for Learning (CFL)* was implemented in 15 schools, 7 schools implemented *CO-NECT*, 6 schools implemented *Talent Development*, 5 schools implemented *Core Knowledge*; *ATLAS* and *Success for All* were each implemented in 4 schools, while *Micro Society*, *Balanced Literacy*, *Principles of Learning*, and *Institute for Learning* were implemented in 2 schools each. Also, a total of 3 schools implemented multiple models and 2 schools implemented locally developed models. The remaining 24 models were implemented in only one school each.

At the time of the implementation site visit, it was reported that 50 of the 78 schools, or about 64%, were still implementing the CSR model. Of the 45 Philadelphia schools, a total of 26, or about 58%, were continuing to implement the CSR model. For the other 18 districts across the state, representing 33 schools, the CSR models were being implemented in 24 (73%) schools. Of the 50 schools still implementing CSR, 36 elementary schools (64%) were continuing to implement the CSR model; at the middle school level, 7 were implementing the model (50%); in the high schools, 7 continued to implement the CSR model (63%). In comparing the models that were implemented in 4 or more schools, the following percentages of schools were continuing to implement the model: ATLAS = 75%, CFL = 73%, Core Knowledge = 72%, Talent Development = 67%, CO-NECT = 29%, and Success for All = 0%.

The degree of implementation ratings were based on a four-point Likert scale, where 3=Implemented and 4=Functional. Across all 78 schools, the overall mean was 3.87 and the standard deviation was .132. The implementation scores ranged from 3.52 to 4.0; a total of 30 schools were rated at the 4.0

level. A number of comparisons were made based on the degree of implementation ratings. The mean score for the Philadelphia schools was 3.89 and the remaining schools statewide had a mean of 3.86 (an analysis utilizing the *t*-test indicated that the difference was not significant). The mean score for the elementary schools was 3.87, for middle schools, 3.86, and for high schools, 3.89; the statistical test employed, analysis of variance, indicated the differences were not significant. Finally, the mean scores for the models implemented in four or more schools follow: CFL = 3.88, CO-NECT = 3.58, Talent Development = 3.94, Core Knowledge = 3.94, ATLAS = 3.82, and Success for All = 3.94. The analyses of variance results indicated that the differences between the scores for those six models were not significant.

Using the comments obtained in the *Post-Implementation CSR Monitoring Assessment Instrument* (developed by the Pennsylvania Department of Education), many of the schools in this study indicated that the CSR model helped prepare for NCLB implementation through its comprehensive approach to staff development and parental involvement, and that the things they learned from CSR provided a firm foundation for NCLB. Specific support for teachers and staff mentioned by the majority of schools included: common planning time, teacher release time, modeling of instructional techniques, support teams for shared decision making, staff development workshops, and leadership teams focusing on capacity building.

In terms of employing proven strategies and methods for student learning and teaching, most sites felt that the models they selected (CFL, Balanced Literacy, Talent Development, Core Knowledge, ATLAS, etc.) for implementation were, in fact, based on scientific research. Some school district staff interviewed noted that the models were on the original "approved" list developed by the U.S. Department of Education that met the criteria of being evidence-based and being appropriately documented in terms of proven effectiveness. As other sources of data to substantiate the scientifically based nature of their programs, schools cited district policies and mandates that they assume are backed by sufficient research.

Another question addressed the extent to which the schools had ample evidence that their programs would significantly improve the academic achievement of their students. Most schools indicated that they were using best practices based on their CSR models, citing publications and other data sources related to their CSR programs. They also stated that their test results had improved over the past four years and these data supported the notion that schools were improving. They also felt that the student achievement results were consistent with other district assessments. In general, schools felt that since the implementation of CSR they had become more data-driven

to build on strengths and improve on their weaknesses. With respect to the degree to which CSR provided the school with a comprehensive design, the schools again cited improved test scores as evidence that CSR effected many school-wide changes that led to improved instruction and helped invigorate the culture of the school. Again, schools also noted that CSR had provided a sound foundation for NCLB implementation and had helped the schools identify effective practices and programs.

Student Achievement

The Pennsylvania System of School Assessment (PSSA) is a statewide test that is administered as required under the Chapter IV Regulations of the State Board of Education as well as various Pennsylvania Statutes. The test is designed to assess academic levels of students, schools, and districts as well as to assist in identifying their strengths and weaknesses and to foster improvements in academic achievement. The basis of the PSSA is the content contained in Pennsylvania's Academic Standards in reading, writing, speaking and listening, and mathematics.

PSSA data are reported by "performance levels" and by "scaled scores." Performance levels indicate the percentage of students within each criterion referenced reading and mathematics achievement level for 5^{th}, 8^{th}, and 11^{th} grades, respectively. The advanced, proficient, basic, and below basic performance level criteria were determined by Pennsylvania educators, along with parent and business representatives. Scaled scores are reported in reading, mathematics, and writing. Scaled scores are included because of their ease of interpretation and because they allow comparison of school results with district and statewide average scaled scores. Additionally, scaled scores provide one overall summary figure at the school level. PSSA scaled scores were used in this analysis.

The analysis was driven by some key research questions. The first issue addressed was student achievement results obtained from the CSR schools relative to statewide results. In a comparison analysis of student achievement between the state of Pennsylvania as a whole and the Comprehensive School Reform buildings involved in this study, there exists a significant difference in student achievement gains as shown in Table 1. An independent *t*-test on CSR-implementation schools and the state revealed the existence of a significant difference between student achievement gains in both math and reading. For this group of schools, the implementation of CSR seemed to be associated with enhanced student achievement.

Table 1. CSR Implementation Schools and Student Achievement: Means, Standard Deviations, and *t*-values

	1st Year of Funding	Post Funding
Student Achievement (Math) All CSR Schools (n= 96) All Pennsylvania (n= 3,057) t (95) = 10.56, p < .01	 1161.04 (100.39) 1300 (NA)	 1226.15 (102.52) 1306 (NA)
Student Achievement (Reading) All CSR Schools (n= 96) All Pennsylvania (n= 3,057) t (95) = 9.46, p < .01	 1144.69 (106.72) 1300 (NA)	 1204.58 (106.86) 1303 (NA)

Given the gains observed for the CSR schools, the next set of questions posed attempted to determine the more specific settings and circumstances where student achievement had improved. A one-way analysis of variance was used to determine the effects of CSR implementation and school type on student achievement. As shown in Table 2, the findings indicate that CSR implementation and school type does have a significant impact on student achievement in both math and reading.

More specifically, an independent *t*-test on the three specific types of schools (elementary, middle, and high school) revealed there were no significant effects on student achievement in either math or reading pertaining to CSR implementation between elementary and middle schools or between middle and high schools. However, the findings indicate there is a significant effect on student achievement and CSR implementation between elementary and high schools. Thus, in this sample of schools, student achievement gains were more likely to occur at the elementary school level than at the high school level.

As more than 50% of the implementation sites were in the School District of Philadelphia, one research question addressed potential differences in the district setting (Philadelphia versus all other CSR schools). Using a *t*-test to determine the effects on student achievement of CSR implementation and the school district where implementation occurred, the results indicate that CSR implementation and school district does have a significant impact on student achievement in both math and reading. As shown in Table 3, these findings suggested that student achievement was enhanced to a greater degree in those CSR schools outside of Philadelphia.

Table 2. CSR Implementation, School Type, and Student Achievement: Means, Standard Deviations, *F*-values, and *t*-values

	1st Year of Funding	Post Funding
Student Achievement (Math)		
Elementary (n= 60)	1181.83 (85.04)	1243.33 (101.17)
Middle (n= 25)	1147.20 (115.13)	1209.60 (99.23)
High School (n= 11)	1079.09 (103.49)	1170.00 (99.50)
F (2,93) = 3.65, $p < .05$		
Student Achievement (Reading)		
Elementary (n= 60)	1146.50 (99.44)	1214.83 (96.55)
Middle (n= 25)	1154.80 (122.27)	1212.80 (107.65)
High School (n= 11)	1111.82 (111.88)	1130.00 (135.28)
F (2,93) = 3.17, $p < .05$		
Student Achievement (Math)		
Elementary (n= 60)	1181.83 (85.04)	1243.33 (101.17)
Middle School (n=25)	1147.20 (115.31)	1209.60 (99.23)
t (83) = 1.41, $p > .05$		
Student Achievement (Reading)		
Elementary (n= 60)	1146.50 (99.44)	1214.83 (96.95)
Middle School (n=25)	1154.80 (122.27)	1212.80 (107.65)
t (83) = .085, $p > .05$		
Student Achievement (Math)		
Middle School (n=25)	1147.20 (115.31)	1209.60 (99.23)
High School (n=11)	1079.09 (103.49)	1170.00 (99.50)
t (34) = 1.102, $p > .05$		
Student Achievement (Reading)		
Middle School (n=25)	1154.80 (122.27)	1212.80 (107.65)
High School (n=11)	1111.82 (111.88)	1130.00 (135.28)
t (34) = 1.97, $p > .05$		
Student Achievement (Math)		
Elementary (n= 60)	1181.83 (85.04)	1243.33 (101.17)
High School (n=11)	1079.09 (103.49)	1170.00 (99.50)
t (69) = 2.22, $p < .05$		
Student Achievement (Reading)		
Elementary (n= 60)	1146.50 (99.44)	1214.83 (96.95)
High School (n=11)	1111.82 (111.88)	1130.00 (135.28)
t (69) = 2.50, $p < .05$		

Table 3. CSR Implementation Schools and Student Achievement in Philadelphia and Other Districts: Means, Standard Deviations, and *t*-values

	1st Year of Funding	Post Funding
Student Achievement (Math)		
Other Districts (n= 33)	1231.21 (80.61)	1300.30 (90.61)
Philadelphia (n= 63)	1124.29 (89.98)	1187.30 (86.07)
t (94) = 6.00, p < .01		
Student Achievement (Reading)		
Other Districts (n= 33)	1222.12 (85.07)	1277.58 (90.17)
Philadelphia (n= 63)	1104.13 (94.09)	1166.35 (94.75)
t (94) = 5.52, p < .01		

In terms of specific CSR models and their impact on student achievement, a one-way analysis of variance was used to determine the effects of CSR implementation. The results, as shown in Table 4, indicate that Comprehensive School Reform, as a whole, has a significant effect on student achievement, but a few specific CSR models had a greater impact on student achievement in both math and reading than others. Keeping in mind the relatively small sample size with respect to the number of schools in which some models were implemented, the particular CSR models that demonstrated a significant effect on student achievement were Community for Learning (in reading and math) and Core Knowledge (in reading).

The final research question addressed the potential relationship between the degree of model implementation and student achievement. Schools were rated on the degree of implementation and comparisons made between schools that were rated as "fully implemented" (with scores of 4.00 on the four-point scale) versus the schools rated as "implementing" (with scores < 4.00 on the four point scale). While the results consistently favored the "fully implemented" schools, there were no statistically significant differences on student achievement in math and reading (see Table 5).

Table 4. CSR Implementation, CSR Model Type, and Student Achievement: Means, Standard Deviations, F-values, and *t*-values

	1st Year of Funding	Post Funding
Student Achievement (Math) CSR Model in 3+ Sites (n=60) All other CSR Models (n=36) F (75.69) = .207, p > .05	 1164.33 (109.95) 1155.56 (83.24)	 1227.83 (104.33) 1223.33 (101.00)
Student Achievement (Reading) 3 > CSR Model Sites (n=60) All other CSR Models (n=36) F (94) = 2.143, p > .05	 1149.33 (112.55) 1136.94 (97.27)	 1206.83 (112.00) 1200.83 (99.20)
Student Achievement (Math) CFL (n= 15) Other CSR Models (n= 81) t (94) = 6.24, p < .01	 1280.67 (69.02) 1138.89 (89.20)	 1334.67 (55.66) 1206.05 (96.55)
Student Achievement (Reading) CFL (n= 15) Other CSR Models (n= 81) t (94) = 5.492, p < .01	 1279.33 (49.92) 1119.75 (95.18)	 1329.33 (53.25) 1181.48 (98.01)
Student Achievement (Math) Core Knowledge (n= 8) All other CSR Models (n= 88) t (94) = 1.940, p > .05	 1230.00 (92.27) 1154.77 (99.22)	 1292.50 (85.48) 1220.11 (102.21)
Student Achievement (Reading) Core Knowledge (n= 8) All other CSR Models (n= 88) t (94) = 2.123, p < .05	 1215.00 (95.32) 1138.30 (105.88)	 1280.00 (84.52) 1197.73 (106.41)

Table 5. Student Achievement, Full CSR Implementation Sites, and Functional Implementation Sites: Means, Standard Deviations, and *t*-values

	1st Year of Funding	Post Funding
Student Achievement (Math) Full Impl. CSR Sites (n= 40) Implemented CSR Sites (n= 56) t (82.24) = 1.880, p > .05	 1186.75 (106.52) 1142.68 (92.41)	 1249.25 (103.34) 1209.64 (99.58)
Student Achievement (Reading) Full Impl. CSR Sites (n=40) Implemented CSR Sites (n= 56) t (94) = 1.455, p > .05	 1168.75 (113.59) 1127.50 (99.00)	 1223.25 (116.91) 1191.25 (97.96)

Discussion

Clearly, the majority of schools continued to implement the CSR model, and the evidence suggests that CSR was sustained in many sites. The degree of implementation ratings provided more compelling evidence related to the more lasting features of CSR programs. All schools were highly rated on the post-implementation instrument, with the scores falling between 3.5 and 4.0 on the four-point scale. In terms of implementation results, the initial implementation data gathered during the funding cycle suggest that most CSR features were implemented in most schools. On the same four-point scale, where 3=Implemented and 4=Functional, most schools had mean scores across all CSR components that were between 3 and 4. The distribution of post-implementation scores was very similar to the initial ratings, and, in general, the ratings were slightly higher for the post-implementation assessment.

For those sites that did not continue implementing the CSR model, there were a number of reasons given by schools for their decision to discontinue. The most frequent cause, most notable in Philadelphia, related to district mandates regarding the specific scope and sequence to be followed that were seen as incompatible with the existing model in the school. Another general issue related to funding, where schools indicated that the programs (Talent Development, Montessori, Success for All, ATLAS, and Micro Society) were very expensive and that they did not have adequate funds to continue supporting the CSR model. A number of schools also mentioned a shift in focus or emphasis in the district to balanced literacy approaches and a movement away from specific CSR models. There were also two reasons that were model-related: a teachers' union grievance forced three sites to discontinue the CFL model, and concerns about the lack of services from the provider was noted by three sites that discontinued the CO-NECT model.

While the trends across all schools reflect positively on CSR programs and their sustainability, the data does not provide persuasive evidence in terms of guaranteeing that any given model will continue to be highly implemented after the funding cycle has been completed. A much larger sample of schools implementing CSR models and longer-term data would make more conclusive judgments possible regarding the sustainability of reform models, and particularly their effects on school performance and student achievement. While the degree of CSR implementation data for the 78 schools included in this study indicated that the schools, for the most part, were in compliance with state and federal guidelines, more in-depth, systematic implementation data would be helpful in future studies.

In terms of student achievement, the implementation of CSR was associated with enhanced student achievement for this group of schools. These results

are similar to those presented by Borman et al. (2003), who reported that the effects of CSR on student outcomes were statistically significant and influential relative to the student populations served. Also, in this sample of schools, student achievement gains were more likely to occur at the elementary school level than in high schools. These results support the findings presented by Berends et al. (2001), who found that CSR programs were more effective relative to student outcomes at smaller schools and in elementary schools. However, with the small number of high schools included in this study, it may be that future studies should look more specifically at CSR implementation in high schools.

These findings suggested that student achievement was enhanced to a greater degree in those CSR schools outside of Philadelphia. McCray, Evans, Clark, et al. (2002) reported in a previous study of Philadelphia CSR schools that while student achievement scores increased, the gains did not differ significantly from that of the district as a whole. It may be that future studies should more closely examine urban schools receiving CSR funding and focus on school context variables that can pose barriers to successful CSR implementation.

In this sample of schools, the specific CSR models that demonstrated a significant effect on student achievement were Community For Learning and Core Knowledge. Because of the small number of schools included in the current study, it is difficult to conclude with any degree of confidence that a particular model will assure success. In the CSR study conducted by Borman et al. (2003), they found that there were different standards of evidence for model effectiveness in terms of actually improving test scores, and additional studies in this regard may be worthwhile for the CSR schools. Certainly, studies with larger numbers of implementing schools by model would enable researchers to better gauge the impact of particular CSR models.

The results related to degree of CSR implementation and student achievement suggest that the "fully implemented" schools tended to do better than the remaining set of schools, although the results were not statistically significant. Thus, while it was not possible to offer strong and convincing evidence that would confirm the results presented by Datnow et al. (2000) and Stringfield et al. (1997), who found that the quality of the implementation has a considerable impact on the success or failure of CSR reform models and their impact on program outcomes, the data do support the general notion.

It may be that future evaluations of implementation should consider the use of multiple indicators or measures that more comprehensively address all of the components of CSR included in the most recent legislation and enable investigators to examine program-specific and school-specific differences in implementation. In that sense, future studies might expand to include implementation data from schools as they complete the funding cycle and examine

the relationship between the degree of implementation of specific CSR models and student achievement. Future evaluations might also consider additional measures related to student outcomes and utilize both qualitative and quantitative methods to assess the success of school reform efforts. Studies such as those would be useful in providing evidence documenting the degree to which the CSR model is being successfully implemented and to provide confirmation that, as a result of the successful implementation of the CSR model, anticipated improvements in student achievement are being attained and sustained.

Conclusion

The purpose of this report was to present post-funding data results to address the more lasting features of CSR programs and their relation to NCLB and support of its requirements. In general, many of the components of CSR are continuing to be implemented in the schools and are supporting NCLB requirements. The majority of the schools included in this study continued to implement the specific CSR model. The degree of implementation ratings provided further evidence related to the more lasting features of CSR programs, as all schools were highly rated on the post-funding implementation instrument.

The findings from this study indicated that the CSR model helped schools prepare for NCLB implementation through its comprehensive approach to staff development and parental involvement, and thus the experience with CSR provided a firm foundation for NCLB. In terms of employing proven strategies and methods for student learning and teaching, most schools felt that the models they selected for implementation were, in fact, developed through scientifically based research.

In terms of student achievement, the implementation of CSR was associated with enhanced student achievement for this set of schools. Also, in this sample of schools, student achievement gains were more likely to occur at the elementary school level than in high schools. In addition, these findings suggested that student achievement was enhanced to a greater degree in those CSR schools outside of the large, urban District of Philadelphia. Finally, there seemed to be a positive trend between student achievement outcomes and the implementation scale ratings of the schools.

Most schools indicated that they were using best practices based on their CSR models and that test scores had improved over the past four years. They also felt that the student achievement results were consistent with other district assessments and that schools had become more data-driven since the implementation of CSR. In general, the schools felt that CSR had helped the schools implement effective practices and programs, one of the major goals of NCLB. In conclusion, the major components of CSR programs were sustained, and

experience with CSR programs helped support the implementation of NCLB requirements in the participating schools and districts across the Commonwealth of Pennsylvania; however, with the large amount of funding allotted by the United States Department of Education for schools using CSR models, more national analyses of CSR models are needed to assess their relationship to student achievement in terms of standardized tests and practical use.

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