Summary of research on the association between state interventions in chronically low-performing schools and student achievement

What's Known

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This report summarizes the research on the association between state interventions in chronically low-performing schools and student achievement. Most of the research focused on one type of state intervention: working with a turnaround partner. Few studies were identified that examined other types of interventions, such as school closure, charter conversion, and school redesign. Most studies were descriptive, which limits the conclusions that can be drawn about the effectiveness of the interventions. Results of studies of turnaround partner interventions were mixed and suggested that student achievement was more likely to improve when particular factors—such as strong leadership, use of data to guide instruction, and a positive school culture characterized by trust and increased expectations for students—were in place in schools.

Current federal education policies promote a substantial role for state education agencies[1] in school improvement. However, administrators in a majority of state education agencies report that improving their lowest performing schools is challenging, perhaps because the work is complex and research on effective strategies is lacking (Tannenbaum et al., 2015). Federal initiatives such as the No Child Left Behind Act, Elementary and Secondary Education Act Flexibility, School Improvement Grants, and the Every Student Succeeds Act provide guidance to state education agencies on intervening in chronically low-performing schools, but because of differences in state policies, the ways that state education agencies are able to intervene vary widely (Klute, Welp, Yanoski, Mason, & Reale, in press). Furthermore, state policies related to school improvement frequently change. For example, in 2014 nearly a quarter of states considered new legislation related to school improvement or related to sanctions or interventions for chronically low-performing schools (Education Commission of the States, 2015).

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Three states in the Regional Educational Laboratory (REL) Central Region—Colorado, Missouri, and Nebraska—were among those considering legislation related to school improvement, sanctions, or interventions for low-performing schools in 2014. REL Central Governing Board members indicated that one of the most pressing issues they were facing was how to improve chronically low-performing schools. State education leaders in the region expressed a need to gain a national perspective on the range of ways that states are currently intervening with their lowest performing schools and what research suggests about the effectiveness of different approaches. They indicated that such information would be helpful as they considered new approaches in their own states. This report is related to another REL Central study (Klute et al., in press) that summarizes state policies for intervening in chronically low-performing schools.

What the study examined

As state policymakers and education leaders consider ways that state education agencies can support the lowest performing schools, they may benefit from awareness of the research on the association between state interventions in chronically low-performing schools and student achievement. This report thus summarizes research published from 1994 to 2014 to address the question, "What does research suggest about the interventions and implementation features associated with improving student achievement in chronically low-performing schools?"

Four electronic databases were searched to identify relevant research studies on the association between state interventions in chronically low-performing schools and student achievement (see box 1 for definitions of these terms). The study team searched for research on all the ways that states intervened to improve chronically low-performing schools, whether specifically tied to a federal initiative or not. The 25 studies described in this report met the study eligibility criteria of fitting the definition of relevant research, focusing on a state intervention including chronically low-performing K–12 schools conducted in the United States, and focusing on student outcomes (see appendix A for a description of the screening and review processes and appendix B for characteristics of the 25 studies). The studies used three main types of research designs, each of which has inherent limitations (box 2).

Box 1. Key terms

Chronically low-performing schools. Schools classified by states as among the lowest performing schools in the state. This category includes schools classified as "priority schools" in states with approved Elementary and Secondary Education Act Flexibility Requests, schools planning for or in restructuring under No Child Left Behind because they failed to make adequate yearly progress for five or more years, schools receiving School Improvement Grants because they were among a state's persistently lowest achieving schools, and schools classified as among the lowest performing schools through state accountability or accreditation policies. Within the parameters of the federal initiatives, states vary in how they define their lowest performing schools (for example, Dillon & Rotherham, 2007; Perlman, 2013).

Relevant research studies. Studies with stated research questions that linked a state intervention to student academic outcomes and that clearly described research methods.

State interventions. Actions taken directly by states or their designees, or actions that states require schools or districts to take, to improve chronically low-performing schools. This report focuses on interventions with individual chronically low-performing schools rather than on districtwide interventions. Interventions did not have to be tied to a specific federal initiative to be included.

Box 2. Research designs used by studies included in this report

Descriptive study. A study with no comparison group. These studies often use qualitative methods and provide rich detail about the implementation of an intervention in one school or a small group of schools. Because they do not compare the schools under study with schools that did not receive the intervention, it is impossible to attribute any observed changes in student outcomes to the intervention itself. This type of study is useful for identifying factors that should be examined in future research using a well conducted impact study design.

Quasi-experimental design study. A study with a comparison group that did not receive the intervention. The studies use a nonrandom process to assign schools to the intervention or comparison groups. Well conducted quasi-experimental designs can provide information about the impact of a program. The What Works Clearinghouse standards for determining whether a quasi-experimental design study is well conducted require a study to demonstrate that the two groups were equivalent on the outcome measure before the intervention, to use reliable and valid measures of outcomes, and to be free of confounds (What Works Clearinghouse, 2014). Confounds are present when only one school is assigned to each condition or when another factor is completely aligned with group assignment (for example, all the schools in the treatment group are in rural areas, while all the schools in the control group are in urban areas).

Retrospective study. A study that compares schools that improved under the intervention to those that did not. These studies use a design that compares two groups that are formed based on student outcomes at the end of the intervention period. In this type of study, researchers look retrospectively at data that were collected during implementation of the intervention to identify factors that may explain the differences in outcomes for the two groups. Because of their retrospective nature, these designs cannot be used to provide causal evidence for the association of identified factors and outcomes. Furthermore, it is possible that any observed difference in outcomes between the groups is due to factors not examined by the study. This type of study is useful for identifying factors that should be examined in future research using a well conducted impact study design.

What the study found

Nearly three-quarters (18) of the 25 identified studies examined one type of state intervention in which the state required the school to work with a turnaround partner (table 1). Although different states refer to these partners with different terms, in all these interventions a technical assistance provider works with a school to identify the school's needs, develop a school improvement plan, and provide technical assistance

Table 1. Number of studies identified, by intervention type and research design

Research design	Type of intervention studied					Total number of studies
	Turnaround partner	School improvement planning with funding	School redesign	Change in entity operating the school	School closure	
Quasi-experimental design studies (studies with a comparison group that did not receive the intervention)	6	1	0	0	1	8
Retrospective studies (studies that compared schools that made improvements under the intervention to those that did not)	3	1	0	0	0	4
Descriptive studies (studies with no comparison group)	9	0	2	2	0	13
Total	18	2	2	2	1	25

Source: Authors' compilation.

in implementing the plan. The remaining seven studies examined school redesign, conversion to a charter school, replacement of staff, transfer of school leadership to an education management organization, and school closure. Descriptions of the research on each of these types of interventions are presented below. Less than a third of identified studies used a quasi-experimental design that compared schools that received an intervention to schools that did not, about one-sixth of the studies used a retrospective design, and over half of studies were descriptive studies with no comparison group.

Research on turnaround partners

Eight of the eighteen studies that focused on a turnaround partner intervention were conducted in California. The remaining studies were conducted in Alabama, Illinois, Kentucky, Louisiana, New Jersey, New Mexico, North Carolina (two studies), South Carolina, and Texas. The six studies that investigated the effects of turnaround partner interventions using a comparison group found mixed results for student achievement. Three studies were retrospective and found that schools that improved had strong leadership, used data to guide instruction, had a positive school culture characterized by trust, and had increased expectations for students.

Studies in California

Studies in California examined the Immediate Intervention/Underperforming Schools Program or its successor, the High Priority School Grant Program. The Immediate Intervention/Underperforming Schools Program was established by California's Public Schools Accountability Act of 1999. Schools with an Academic Performance Index score in the bottom half of all schools statewide were eligible for the program. The High Priority School Grant Program was created by the California state legislature in 2001 to replace the Immediate Intervention/Underperforming Schools Program. Schools ranked in the bottom 10 percent statewide were eligible for the High Priority School Grant Program. While the programs differed slightly, both involved low-performing schools voluntarily working with an outside evaluator to identify barriers to student achievement and develop a multiyear action plan to address those barriers. Schools received additional funding to support implementation of the plan and faced increased sanctions if they did not demonstrate progress (Bitter et al., 2005; Goe, 2006; Harr, Parrish, Socias, & Gubbins, 2007; Timar & Chyu, 2010; Woods, 2004). Schools that failed to improve and faced increased sanctions were required either to work more intensively with a turnaround partner (called a school assistance intervention team) for three years or to enter into an agreement (called a joint intervention agreement) to address corrective actions by the state within 18 months or face further sanctions (Davis, 2007).

Of the eight studies conducted in California, three focused on the Immediate Intervention/Underperforming Schools Program in general, two focused on the High Priority School Grant Program in general, two focused on schools that had not made progress and had entered into a joint intervention agreement, and one focused on a school that had not made progress and had worked with a school assistance intervention team.

Studies of the Immediate Intervention/Underperforming Schools Program. Two of the three studies of the Immediate Intervention/Underperforming Schools Program examined more than 2,000 schools and compared schools that participated in the program with similar schools that did not participate.[2] Both Bitter et al. (2005) and Goe (2006) reported that student achievement was similar in participating schools and comparison schools before the intervention and remained similar after the intervention.

An additional study examined more than 100 schools and compared participating schools that were deemed successful to participating schools that were less successful.[3] Woods (2004) relied on interviews

with principals who identified factors that distinguished successful and less successful schools, including leaders (school board members and district and site administrators) who set a positive tone, well articulated curricula that address a clear progression of learning goals from one grade to the next, and systems for analyzing individual student progress and designing instruction to meet the needs of all students. Although the study attributed whether schools were successful to the factors, other factors not identified may explain the difference in outcomes.

Studies of the High Priority School Grant Program. Results of two studies examining the High Priority School Grant Program echoed the findings of studies examining the Immediate Intervention/Underperforming Schools Program.

Harr et al. (2007) examined data from more than 300 schools and compared schools that participated in the High Priority School Grant Program to schools that did not participate. The comparison group was the lowest performing schools that did not participate in the program, a group of schools that served "slightly less challenging populations" (p. 2) and that were slightly higher performing than schools that participated in the program. Participating schools demonstrated gains in student achievement after being selected for the program, but the gains were similar to those in comparison schools. The results should be interpreted with caution because of the differences between the two groups of schools before the intervention. In addition to the difference in student achievement, participating schools tended to serve a higher proportion of students with special needs than comparison schools, which also may have contributed to the lack of differences in outcomes that was observed.

Timar and Chyu (2010) conducted a descriptive study of 15 schools that participated in the High Priority School Grant Program and compared schools that improved to schools that did not improve.[4] Several factors distinguished schools that improved from schools that did not improve, including more trust among staff, more stability in staff, and stronger leadership. Schools that improved also used their additional funding and action plans differently from how other schools used them. Specifically, schools that improved tended to use the additional funding for purposes that were closely tied to the school's vision for improvement, while schools that did not improve tended to use the funding to satisfy immediate needs, such as funding items that the school could not afford to pay for out of its regular budget but that were not tied in any way to the school improvement plan. In schools that improved the action plan tended to be a living document that was continually referred to, evaluated, and updated, while in schools that did not improve the action plan tended to be less coherent and not referred to after it was initially submitted. In addition, other factors not identified in the study may explain the difference in outcomes for the two groups of schools.

Studies of joint intervention agreements. Two studies focused on the joint intervention agreement process during which the state conducts a scholastic audit of the school to identify corrective actions.[5] The district then enters into an agreement with the state to take those corrective actions within 18 months (Bibian, 2006; Davis, 2007). Both studies were descriptive studies of a single middle school that had demonstrated improvement in student achievement overall (Davis, 2007) or improvement in achievement among English learner students (Bibian, 2006). In addition to establishing a joint intervention agreement, both schools experienced turnover in leadership and staffing that were not required by the state intervention. Both studies examined a variety of data sources, including interviews, surveys, observations, and archival data, and identified several factors associated with increased achievement, including strong leadership, positive changes in the school culture, and targeted professional development.

Study of a school assistance intervention team. One study examined an elementary school that was working with a school assistance intervention team. Tapia (2008) focused on one component of the team's work:

training teachers in the instructional materials adopted by the state board of education. The school that worked with the team was compared to another school that appeared on a Similar Schools Report prepared by the California Department of Education. The schools were similar in terms of demographic characteristics and Academic Performance Index scores (California Department of Education, n.d.). The study found mixed results: the school that worked with the team made greater increases on California's accountability measure, the Academic Performance Index, but the comparison school outperformed the school that worked with the team in the percentage of students scoring proficient or advanced on the state assessments in language arts and math.[6] Because only one school was included in each group, it is impossible to know whether the results were due to the intervention or to other idiosyncratic features of one or both schools.

Studies in other states

Ten studies examined interventions in states other than California. Studies varied somewhat in the details of the interventions studied, including whether additional funding was provided to support implementation of reforms. Unlike interventions in California, studies in other states did not describe school participation in interventions as voluntary.

Studies in two states examined interventions that were similar to those in California, in that extra funding was provided to schools to support the implementation of improvement efforts. Both studies were descriptive and did not include a comparison group:

- Kentucky's distinguished educator program was created by the Kentucky Education Reform Act of 1990. Wakelyn's (2006) case study examined four high schools using qualitative methods. Distinguished educators worked with schools to develop a schoolwide transformation plan. All four schools demonstrated improvement in student achievement.

- Cruz's (2007) case study examined four elementary schools in New Mexico that were required by the state's public education department to work with a state-assigned liaison who provided technical assistance and helped the school develop an action plan for improvement. The schools also received training on the Malcolm Baldridge Education Criteria for Performance Excellence, which were adapted from the Baldridge Criteria for business (originally developed by the National Institute of Standards and Technology) to provide a framework for school reform focused on performance management for continuous improvement. Principals at two of the four schools believed that the intervention had a positive impact on student achievement. Three of the four schools demonstrated improvement in student test scores in both reading and math, although only one made adequate yearly progress.

The eight remaining studies of turnaround partners did not mention extra funding to support school improvement efforts:

- Scroggins (2012) examined Louisiana's Distinguished Educators Program, which was created by state legislation in 1999 and involved the state assigning distinguished educators to work in some schools that were rated academically unacceptable. These educators were charged with working closely with staff at the school to identify strengths and weaknesses, identify strategies for improvement, and provide assistance in implementing those strategies. The study compared schools that received distinguished educators to those that did not and examined whether test scores in grades 3–5 differed for the two groups. The study does not provide information on how the comparison schools were selected. The results indicated a significant difference for grade 4 only: schools with distinguished educators had a higher average assessment score in English language arts and in

math than schools without a distinguished educator. Differences were not significant for the other two grades. However, because no information was provided about how similar the two groups were before the intervention, the results should be interpreted with caution.

- Thompson, Brown, Townsend, Henry, and Fortner (2011) compared students' academic achievement in turnaround schools (schools that scored below 60 percent for at least two years on North Carolina's Performance Composite, which summarizes the percentage of end-of-grade or end-of course assessments that students passed) and schools that performed only slightly better.[7] Between 2006 and 2010 turnaround schools received technical assistance to develop required school improvement plans consistent with the state's Framework for Action and professional development and school-level coaching aligned with the goals identified in the plan. At the high school level students' academic achievement was significantly greater in turnaround schools than in comparison schools. Graduation rates increased more in turnaround schools than in comparison schools, though the difference was not statistically significant. At the middle school level turnaround schools made greater improvement in student achievement in reading, though the results were not statistically significant. Although differences between the turnaround and comparison schools before the intervention were controlled for, the study did not provide detailed information on how much the groups differed at baseline. The findings about the outcomes associated with the intervention should thus be interpreted with caution. The study also sought to identify characteristics that distinguished turnaround schools that improved from those that did not. The study identified the following factors: changes in principals and staff; culture of trust, accountability, and high expectations for students; professional development and follow-up coaching focused on the most pressing problems that the schools were facing; supports for improved instruction such as use of formative assessment and assigning struggling students to the most effective teachers; and district-level support related to staffing, support for data analysis, and assistance for struggling students. Other factors beyond these differences might explain the difference in outcomes.

- Dominguez, Nicholls, and Storandt (2006) examined 62 schools that worked with an external review team and compared schools that improved to reach satisfactory status under South Carolina's accountability system with schools that did not. External review teams were a strategy introduced by South Carolina's Education Accountability Act of 1998, which prompted a shift in the state's technical assistance efforts from districts to individual schools. Teams work with low-performing schools to diagnose strengths and weaknesses and develop and implement school improvement plans that specify the support, services, and technical assistance the state would provide to the school. The schools that did not improve appeared to have "deeper or more systemic problems as evidenced by lack of procedures to support alignment with state academic standards, not using student data to inform curricula, and not engaging in planning based on research-supported practices" (p. 9). The two groups of schools differed in the content of technical assistance provided. Schools that improved most often received technical assistance in parent and community involvement, best practices for homework centers, and help selecting instructional materials. Schools that did not improve most often received technical assistance in understanding education research, planning and assessing professional development, and stakeholder involvement in curriculum development. Other factors that the study did not identify could explain the difference in outcomes for the two groups of schools.

- Jefferson (2006) examined the Alabama State Takeover Model, which is part of the implementation of the Alabama Education Accountability Plan, in 10 schools. The model involved a team of state-appointed staff assuming leadership of the school for one year during which the team analyzed three to five years of assessment data and developed a school improvement plan that included

a seven month plan for instructional delivery. During implementation of the seven month plan, the team provided feedback on lesson plans, observed classrooms, and modeled effective strategies. Seven of the ten schools experienced an increase in student achievement, one school experienced little change, and two schools experienced a decline in student achievement. About three-quarters of teachers and administrators who responded to a survey reported that the process helped improve student achievement.

- Four studies examined similar interventions: support for school improvement planning provided by the state system of support in Illinois, a technical assistance team in Texas, Collaborative Assessment and Planning for Achievement in New Jersey, and an assistance team in North Carolina.[8] Each used case study methodology to describe characteristics of schools that improved after experiencing these interventions. These studies highlighted factors such as increased expectations of students and accountability for staff, use of student data to drive instruction, and use of varied effective teaching strategies to meet individual students' needs that appeared to be associated with increases in student achievement after the state intervention (Cepela, 2008; Johnson, 2008; Macias, 2011; Sipp, 2008).

In summary, the studies that investigated the effects of turnaround partner interventions using a comparison group found mixed results for student achievement. Several studies used qualitative methods to identify conditions that differed between schools that improved after state intervention and schools that did not. Schools that improved had strong leadership, used data to guide instruction, had a positive school culture characterized by trust, and had increased expectations for students.

Research on state interventions that did not involve turnaround partners

The literature search identified seven additional studies addressing other types of state interventions. These studies examined school improvement planning with additional funding, school restructuring, changes in the entity operating the school, and school closure. Studies of interventions that did not involve turnaround partners were few and addressed a disparate group of intervention strategies. It is challenging to draw any conclusions about the effectiveness of these strategies or the conditions under which they will be most likely to be successful based on this limited body of research.

Studies on school improvement planning with additional funding

Two studies (one of which was described in three related reports) examined school improvement planning with additional funding that came from two interventions specified by Massachusetts's 2010 Act Relative to the Achievement Gap. Schools identified as the state's persistently lowest performing schools were required to develop turnaround plans that addressed Massachusetts's 11 Conditions for School Effectiveness (Lane, Unger, & Rhim, 2012).[9] Some of the schools also received School Redesign Grants, with funding from the federal School Improvement Grant program, to support their improvement efforts.

Lane et al. (2012, 2013) and Lane, Unger, and Souvanna (2014) examined 34 schools that developed turnaround plans—30 of which also received School Redesign Grants—from 2010 to 2013 and compared schools that improved to those that did not. Four factors distinguished the two groups of schools over time: leadership, shared responsibility, and professional collaboration; intentional practices for improving instruction, including individualized support of teachers' ability to identify student needs and deliver student-responsive instruction; providing student-specific instruction and supports to all students; and a safe, respectful, and collegial climate for teachers and students. Although schools' success was attributed to these factors, other unidentified factors may explain the difference in outcomes.

LiCalsi, Citkowicz, Friedman, and Brown (2015) compared schools that received School Redesign Grants to schools in the same district that did not. The study found positive, statistically significant effects of the School Redesign Grants for student achievement in math and English language arts. Although differences between the two groups of schools before receiving the grants were controlled for, the study did not provide detailed information on how similar the two groups of schools were in student achievement before the intervention. The results should thus be interpreted with caution.

Studies on school restructuring

Two studies reported on school restructuring.

Fields (2011) reported on three schools in Texas that had been restructured into theme-focused magnet schools in response to a state law that requires a school to restructure when it receives an academically unacceptable rating for two years. The schools were selected for study because they demonstrated growth in student achievement after they were restructured. Strong leadership and ongoing involvement of staff in the planning and implementation of the redesign were found to be present in the schools.

Albarracin (1999) examined one low-performing school in New York that was required by the state to close and to open as a redesigned school the following year. School staff, parents, district staff, and state staff participated in a collaborative process to develop the plan for the redesigned school. The result involved dividing the school into two "houses," one for grades K–3 and one for grades 4–6, instituting new approaches to school management, new curricula, and changes to the daily schedule. The school did not demonstrate growth in student achievement after reopening as a redesigned school.

Studies on changes in the entity operating the school

Two studies examined changes in the entity operating the school.

Freshwater (2012) used case study methodology in four schools from one large urban school district that were required by their state to replace staff and work with an external partner to improve teaching and learning. Operation of two schools was turned over to an education management organization; in the other two schools, all staff were replaced. After three years of implementation all four schools were still persistently low performing, though some incremental improvement in student achievement had been made in three of them. The one school that did not show steady improvement experienced high principal turnover.

Dworaczyk (2008) also used case study methodology to examine one school in California where the conversion to a charter school was followed by increased student achievement. The study identified a variety of changes made when the school converted to a charter that school staff felt contributed to the improvement, including better qualified staff, differentiated instruction, strong leadership, smaller school size, higher expectations, staff development, and enrichment activities for students. The results should be interpreted with caution, as all conclusions were based solely on staff perceptions.

Study on school closure

One study examined school closure. Silander (2012) compared a treatment group of grade 6 students who enrolled in one of 14 New York middle schools that were subsequently closed to a comparison group of students who enrolled in grade 6 four years later who would have been likely to enroll in one of the 14 middle schools had they not closed. Although propensity score matching was used to create groups of students that were similar on assessment scores, attendance, and demographic characteristics, the method does not

account for other factors, such as political or societal factors, that may have changed over the four years that elapsed between the treatment and the comparison groups' enrollment in middle school. The students in the comparison group demonstrated greater gains on assessments in English language arts and math than the students in the treatment group.

In summary, substantially fewer studies examined interventions that did not involve turnaround partners. These studies examined school improvement planning with funding, school redesign, a change in the entity operating a school, and school closure. Only one or two studies of each type of intervention were located, which makes it challenging to draw any conclusions about the effectiveness of these strategies or the conditions under which they will be most likely to be successful.

Limitations and implications of the study

This report summarizes the research on the association between state interventions in chronically low-performing schools and student achievement (see table 1). Although the study team searched for research on a wide variety of state interventions, the vast majority of the research that was located focused on one type of state intervention: working with a turnaround partner. Previous research has indicated that many states have policies to permit this type of state intervention. For example, 41 states have policies allowing the state or its designee to conduct an instructional audit, and 35 states have policies that permit the state to appoint a turnaround partner or technical assistance provider (Klute et al., in press). Despite the popularity of this type of intervention across states, nearly half the studies in this review were conducted in just one state, California.

A substantial limitation in the existing literature is that most studies used a research design that does not permit causal conclusions about the effects of these interventions. Less than a third of identified studies used a quasi-experimental design that compared schools that received an intervention to schools that did not (see table 1). Many of these studies had serious limitations, including confounds created when only one school was assigned to each condition or when the treatment and control groups attended school at widely different points in time. Other studies did not provide the information needed to assess the extent to which treatment and comparison groups were similar at the start of intervention.

Four studies compared schools that made improvements under the intervention to those that did not. These retrospective studies seek to identify factors or characteristics that distinguish more and less successful schools. Because the identified factors or characteristics were not identified and systematically assigned to schools at the start of the intervention, it is impossible to know whether those factors are truly the cause of the school's success rather than other unmeasured factors. The remaining studies (about half) were descriptive studies of one school or a group of schools. While these studies provide rich detail about what took place in the schools experiencing state interventions, they rarely compare schools that receive an intervention to other schools.

Retrospective and descriptive designs can be useful for identifying characteristics or strategies that could be addressed in future research. The studies summarized in this report identified strong leadership, use of data to guide instruction, positive school culture characterized by trust, and increased expectations for students as factors that seem to be associated with positive student outcomes in schools experiencing state intervention. Future research may need to use more rigorous designs that can estimate the impact of these interventions on student achievement in order to be of maximum benefit in guiding policymakers and state education agency staff as they design interventions in chronically low-performing schools.

Studies on state interventions rarely used research designs, such as quasi-experimental designs, that can provide evidence about the impact of the intervention. Only one type of intervention, turnaround partner interventions, had more than one study that compared schools receiving the intervention to those not receiving it (see table 1), and all identified studies had methodological concerns that limit the strength of their conclusions. Among the six studies of turnaround partners that used a comparison group, one reported a positive effect of the intervention (Thompson et al., 2011), three reported nonsignificant results (Bitter et al., 2005; Goe, 2006; and Harr et al., 2007), and two reported mixed findings (Scroggins, 2012; Tapia, 2008). As a group, these studies do not provide consistent evidence for the effectiveness of this type of intervention.

Very little research was located regarding interventions that did not involve a turnaround partner, such as school closure, charter conversion, and school redesign. Because only one or two studies of each of these interventions were located, it is difficult to draw conclusions about the effectiveness of these interventions or the conditions under which these interventions are most likely to be successful. Future research could examine implementation of these types of interventions in relation to student achievement.

Appendix A. Literature search procedures

To identify what the research literature suggests about the interventions and implementation features associated with improving student achievement in chronically low-performing schools, the study team conducted a comprehensive search to identify relevant studies. The search proceeded in two steps: an electronic database keyword search and an intervention search. After the search, the study team consulted with content area experts to identify any other studies that were missing.

Electronic database keyword search

An electronic database keyword search was the first step in identifying research on state interventions in chronically low-performing schools. The study team used keywords to search four electronic databases during August–October 2014: ERIC, PsycINFO, ProQuest Dissertations and Theses, and Academic Search Premier. The study team was trained to screen studies and keep those that met the following relevance criteria:

- Must be a study or a literature review.
- Must examine a state-initiated intervention in one or more chronically low-performing schools.
- Must involve a K–12 public school in the United States, including traditional schools, charter schools, and magnet schools.
- Must be published between January 1994 and October 2014.
- Must be written in English.

Search terms included 69 keywords related to state interventions that were developed after reviewing states' Consolidated State Performance Reports for 2009–14 and the most current versions of each state's Elementary and Secondary Education Act Flexibility Requests as of August 2014. A consultant with expertise in interventions for chronically low-performing schools reviewed the keywords and provided suggestions for additional keywords. Final keywords are listed in box A1. Each keyword was combined with the words "state" and "school" during the searches to identify reports that included all three search terms. Keywords in quotation marks indicate those that the study team used to search for exact phrases (for example, "education management organization" was searched as one term in which all three words in sequence needed to be present), and asterisks indicate wildcards, used so that words with different endings could be found (for example, "govern*" would produce results that include the word "governing" and "governance").

Initial keyword searches returned 35,963 records (figure A1). The study team conducted the initial screen by reviewing study titles and abstracts to determine whether studies met the relevance criteria described above. When it was unclear whether a study met relevance criteria based on the information contained in the title and abstract, researchers included the study to be more closely reviewed in the second step of screening. The electronic database keyword search and initial screening identified 317 potentially relevant reports.

One member of the study team conducted a second screening of the potentially relevant reports, consulting the full text of each document as necessary to determine whether the report was indeed a research study, defined as a report that presented qualitative or quantitative data to address a research question using clearly defined methods. Another member of the study team also screened a random selection of 10 percent of the 317 reports to check the accuracy of the first study team member's screening decisions. This check confirmed 88 percent of screening decisions. For the remaining 12 percent of decisions, study team members discussed the ways in which each report met or did not meet each criterion until they reached consensus about the final screening decision. After the second screening 139 studies remained.

Box A1. Keyword search terms

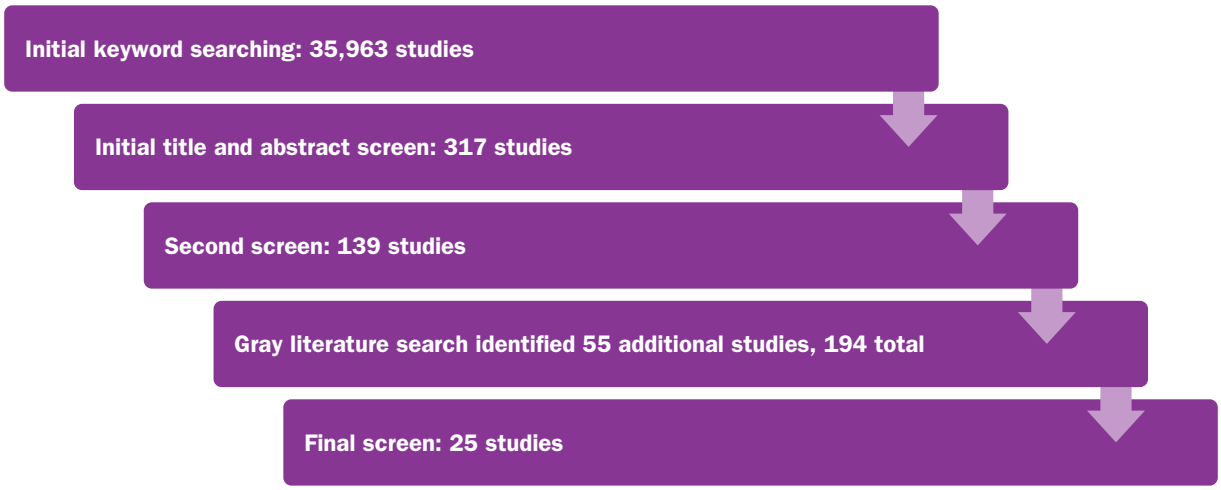
accountabil*	“improvement plan”	“scholastic audit”
“ASSIST team”	ineffective	“school administrative team”
“assistance team”	“instructional audit”	“solutions team”
challenge	“leadership coach”	“state appointed”
“charter conver*”	“low perform*”	“state-appointed”
closure	“low-perform*”	“state directed”
conservatorship	“memorandum of understanding”	“state-directed”
contract*	MOU	“state review panel”
“decision making”	“needs assessment”	“state system of support”
“decision-making”	“new start”	SSOS
“direct management”	non-complian*	“structural change”
discontinuance	“operational control”	struggling
dissolve	“parent trigger”	takeover
distress*	privatize	“technical assistance”
“education management organization”	“program improvement”	“third party”
EMO	“public-private partner*”	“third-party”
“education specialist”	receiver*	turnaround
“external management”	reconstitute*	turn-around
“external review”	recovery	“turn around”
failing	“replace staff”	unacceptable
govern*	restaffing	underachieving
“highly skilled educator”	restart	underperform*
“implementation plan”	restructuring	unsatisfactory

EMO is education management organization; MOU is memorandum of understanding; SSOS is statewide system of support.

Note: Quotation marks indicate exact phrases; asterisks indicate wildcards.

Source: Authors’ compilation.

Figure A1. The study team used five steps to screen relevant studies



Source: Authors’ construction.

Intervention search

Based on the review of Consolidated State Performance Reports and Elementary and Secondary Education Act Flexibility Requests, the study team developed a list of state-specific interventions. A consultant with expertise in interventions in chronically low-performing schools reviewed the list and offered suggestions for additional interventions. The final list includes 122 specific interventions (box A2). The study team searched the same four databases used for the keyword search on these names. This process identified 50 additional studies.

Box A2. Interventions by state

Alabama
Continuous Improvement Plan
Regional Inservice Centers
Regional Planning Teams
Regional Support Staff
Turnaround Teams

Arizona
Continuous Improvement Plan

Alaska
Alaska Effective Schools Framework
Alaska STEPP (Steps Toward Educational Progress and Partnership)

Arkansas
Priority Intervention Plan (PIP)

California
Intervention Teams

Colorado
Coordinated Support Teams
External Providers
Innovation School
Performance Managers
School Performance Framework
State Review Panel
Unified Improvement Plan* (UIP)

Connecticut
Commissioner's Network
Comprehensive Success Review
Priority Zone
Success Plan

Florida
Continuous Improvement Model
Florida Turnaround Leaders Program
Hybrid Model
Instructional Review
Intervene Option Plan

Georgia
Georgia Assessment of Performance on School Standards (GAPSS)

Hawaii
Office of School Transformation
Priority Academic and Financial Plan
Zones of School Innovation

Idaho
Capacity Builders
Governance Partnership Model
Instructional Core Focus Visit
WISE (Ways to Improve School Effectiveness)

Illinois
Comprehensive Audit

Indiana
Intervention Plans
Lead Partner
Turnaround Academ*
Turnaround School Operator (TSO)

Kansas
Action Plans
Integrated Innovation

Kentucky
Consolidated School Improvement Plan
Distinguished Educator
Education Recovery

Louisiana
Academically Unacceptable Schools
Baton Rouge Achievement Zone
Distinguished Educator
Network Teams
Recovery School District

Maine
School Coaches

Maryland
Breakthrough Center
School Improvement Planning

Massachusetts
Redesign Plan
Tri-State Rubric

Michigan
District Intervention Team
Education Achievement Authority
Education Achievement System
School Improvement Framework

Minnesota
Minnesota Common Principles of Effective Practice
Regional Centers of Excellence

(continued)

Box A2. Interventions by state *(continued)*

Mississippi
Implementation Specialists
Mississippi SOARS (Schools Obtaining Academic Results for Success)
School at Risk

Missouri
Comprehensive School Improvement Plan
Regional School Improvement Teams

Nevada
Nevada Comprehensive Curriculum Audit Tool for Schools
SAGE (Student Achievement Gap Elimination)

New Hampshire
State School Improvement Team
Steps to Success

New Jersey
Quality School Review
Regional Achievement Centers

New Mexico
Priority Schools Bureau

New York
Diagnostic Tool for School and District Effectiveness
Distinguished Educator
Educational Partnership Organization (EPO)
Metrics and Expectations
School-Based Inquiry Teams
Tri-State Rubric

North Carolina
Roundtables
School Implementation Team
Transformation Coach

Ohio
Academic Distress Commission
Diagnostic Review
Ohio Improvement Process
Parent Takeover Pilot Project
Transformation Specialists

Oklahoma
C3 Schools
Priority Schools Advisory Board
WISE (Ways to Improve School Effectiveness)

Oregon
Comprehensive Achievement Plan
Cycle of Improvement
School Appraisal Teams

Pennsylvania
Academic Recovery Liaison
Comprehensive Planning Tool
Standards Aligned System

Rhode Island
Diagnostic Screen
Flex Model
Tri-State Rubric

South Carolina
Challenge to Achieve Plan
External Review Process
South Carolina Turnaround Leaders Program

South Dakota
School Support Team
SD LEAP (Leading Effectively Achieving Progress)

Tennessee
Achievement Advisory Council
Achievement School District
Consortium on Research, Evaluation and Development
Innovation Zone
School Support Team

Texas
Alternative Management
Campus Intervention Team
District Coordinator of School Improvement
Professional Service Provider
Repurposing
Texas Title 1 Priority Schools (TTIPS)
Texas Turnaround Leadership Academy

Utah
School Support Team

Virginia
Lead Turnaround Partner
Opportunity Education Institution
Partnership for Achieving Successful Schools
Project Graduation
School Turnaround Specialist Program
School-Level Academic Reviews
Turnaround Zone

Washington
Academic Performance Audit
Required Action Districts

West Virginia
Extended Strategic Plan
School Improvement Coordinators

Wisconsin
Committee on District and School Improvement
Reform Plan
Turnaround Partner

* indicates a wildcard.

Source: Authors' compilation

Expert consultation

A list of all located reports was sent to two consultants with expertise in interventions in chronically low-performing schools. The study team asked them to review the list and to identify any potentially relevant studies that were not included. Seven additional reports were suggested, five of which met the screening criteria. One of these reports was published in 2015, after the timeframe for the initial searches, but was included because it was relevant and met other screening criteria.

Final screening

During the final screening, three study team members carefully read each report and screened against three criteria. First, they assessed whether the intervention met the definition of state interventions, which include actions taken directly by states or their designees to improve chronically low-performing schools or actions that states required schools or districts to take to improve chronically low-performing schools. Second, they confirmed that the study examined student academic outcomes. Third, they assessed whether the report clearly stated research questions or objectives that linked the intervention to the student outcomes. After this final screening, 27 reports on the 25 studies described in this report remained.

Appendix B. Characteristics of studies included in the literature review

Table B1 presents details on each of the 25 studies, including the year the intervention was implemented, study location, sample size, and research methods used.

Table B1. Characteristics of the 25 studies included in the literature review

Study	Intervention name	State	Year implemented	Data source	Comparison	Grade level	Number of schools included in study
Interventions involving turnaround partners							
Bibian (2006)	Joint intervention agreement	California	2002/03	Interviews with school and district staff, classroom observations, student assessment data	None	Middle	1
Bitter et al. (2005)	Immediate Intervention/ Underperforming Schools Program, school assistance and intervention team	California	2003/04	Interviews with school and district staff, interviews with school assistance and intervention team leaders, student assessment data	Compared participating schools to similar nonparticipating schools	Elementary, middle, and high	2,338
Cepela (2008)	State System of Support	Illinois	2006/07	Interviews with school and district staff, analysis of school improvement plan documents, student assessment data	None	Middle	2
Cruz (2007)	Mandated use of Malcolm Baldridge Education Criteria for Performance Excellence	New Mexico	2005/06	Surveys of school staff, interviews with principals, student achievement data	None	Elementary and middle	4
Davis (2007)	Joint intervention agreement, Comprehensive School Reform program	California	2002/03	Surveys of teachers and administrators, review of documents, interview with the area superintendent, student assessment data	None	Middle	1
Dominguez, Nicholls, & Storandt (2006)	External review team	South Carolina	2001/02	Interviews with external review team members and school staff review of documents, student assessment data	Compared schools that improved to those that did not	Elementary, middle, and high	62

(continued)

Table B1. Characteristics of the 25 studies included in the literature review *(continued)*

Study	Intervention name	State	Year implemented	Data source	Comparison	Grade level	Number of schools included in study
Goe (2006)	Immediate Intervention/ Underperforming Schools Program	California	1999–2002	Interviews with school staff, classroom observation, student achievement data	Compared schools that participated in the Immediate Intervention/ Underperforming Schools Program to schools that qualified for but did not apply to the program	Elementary, middle, and high	3,221
Harr, Parrish, Socias, & Gubbins (2007)	High Priority Schools Grant Program	California	2002–06	Student assessment data, analysis of documents	Compared schools that participated in the High Priority Schools Grant Program to low-performing schools that did not participate	Elementary, middle, and high	319
Jefferson (2006)	Alabama State Takeover Model	Alabama	1999–2001	Surveys of school staff, student assessment data	None	Elementary, middle, and high	10
Johnson (2008)	Assistance team	North Carolina	2005/06	Interviews with school staff, surveys of teachers, student assessment data	None	High school	1
Macias (2011)	Technical assistance team	Texas	2006–09	Interviews and focus groups with school and district staff, student assessment data	None	Elementary	1
Scroggins (2012)	Distinguished Educator Program	Louisiana	2008–10	Student assessment data	Compared distinguished educator schools to those that did not receive a distinguished educator	Elementary	288
Sipp (2008)	Collaborative Assessment and Planning for Achievement	New Jersey	2004–07	Student assessment scores, administrator interviews, surveys of teachers, analysis of documents	None	Elementary	2
Tapia (2008)	School Assistance and Intervention Team	California	2005/06	Surveys and interviews with school staff, observations, student assessment data	Compared the school with a school assistance and intervention team to a similar school without a team	Elementary	2

(continued)

Table B1. Characteristics of the 25 studies included in the literature review *(continued)*

Study	Intervention name	State	Year implemented	Data source	Comparison	Grade level	Number of schools included in study
Timar & Chyu (2010)	High Priority Schools Grant Program	California	2004–08	Interviews and focus groups with school staff, classroom observations, student assessment data	Compared improving schools to nonimproving schools	Elementary and high	15
Thompson, Brown, Townsend, Henry, & Fortner (2011)	Turnaround schools	North Carolina	2006–10	Student assessment data, interviews with school and district staff and turnaround partners	Compared turnaround schools to schools not receiving the intervention, compared improving schools to nonimproving schools	Elementary, middle, and high	212
Wakelyn (2006)	Distinguished Educator Program	Kentucky	1994–96	Interviews with school staff, student assessment data	None	High school	4
Woods (2004)	Immediate Intervention/ Underperforming Schools Program	California	1999–2002	Survey of principals, student assessment data	Compared successful schools to less successful schools	Elementary	107
Interventions involving school improvement planning with additional funding							
Lane, Unger, & Rhim (2012, 2013); Lane, Unger, & Souvanna (2014)	Conditions for School Effectiveness, School Redesign Grants	Massachusetts	2010–13	Monitoring site visit reports, School Redesign Grant renewal applications, student assessment data	Compared schools that improved to those that did not	Elementary, middle, and high	34
LiCalsi, Citkowicz, Friedman, & Brown (2015)	School Redesign Grants	Massachusetts	2010–13	Student assessment data, attendance data	Compared schools that received School Redesign Grants to other schools in the same districts	Elementary, middle, and high	31 schools that received School Redesign Grants; number of comparison schools is not specified
Interventions involving school restructuring							
Albarracin (1999)	School redesign	New York	1996/97	Student assessment data; document analysis; unstructured interviews with school staff and parents; surveys of teachers, administrators, parents, and students; observations	None	Elementary	1

(continued)

Table B1. Characteristics of the 25 studies included in the literature review *(continued)*

Study	Intervention name	State	Year implemented	Data source	Comparison	Grade level	Number of schools included in study
Fields (2011)	Reconstitution into a theme-focused magnet school	Texas	2009/10	Interviews with school and district staff, surveys of teachers, analysis of documents	None	High school	3
Interventions involving changes in the entity operating the school							
Dworaczyk (2008)	Convert to charter	California	2005/06	Surveys and interviews with school staff, classroom observations	None	Elementary	1
Freshwater (2012)	District reconstitution, education management organization	Not stated	2007–10	Interviews with school, district, and education management organization staff; observations; analysis of documents	None	High school	4
Interventions involving school closure							
Silander (2012)	School closure	New York	2006–08	Student assessment scores, attendance data	Compared students in the school that subsequently closed to students who attended an alternative school after school closure was announced	Middle	14

Source: Authors' compilation.

Notes

1. Throughout this report "state education agency" refers to the state-level government education agency or department of education responsible for supervising public elementary and secondary education.
2. Goe (2006) compared participating schools to all schools that qualified, regardless of whether they applied to the program. Bitter et al. (2005) compared the first cohort of participating schools to a comparison group of schools that had applied for the program but had not been selected; for the second and third cohorts of participating schools, all eligible schools were used as the comparison group because most of the schools that applied were selected.
3. Successful schools were defined as those that gained at least 90 points on the Academic Performance Index between 1999 and 2002. Less successful schools were defined as those that gained 30 points or less between 1999 and 2002. Academic Performance Index scores are based on the national percentile rank scores for students in each school on the state assessment (the Stanford Achievement Test, Ninth Edition) and range from 200 to 1,000.
4. Schools that improved were defined as schools that met targets for adequate yearly progress and growth on the Academic Performance Index for two years or more during the funding period. Schools that did not improve were defined as schools that did not meet targets for adequate yearly progress or growth on the Academic Performance Index for three years.
5. The scholastic audit is a five-day process during which audit team members collect information about the school through interviews, classroom observations, document review, surveys, meetings, and focus groups with school staff, students, and parents (Bibian, 2006; Davis, 2007).
6. While the findings seem contradictory, this pattern of results may be due to the fact that the Academic Performance Index is sensitive to improvement across the range of performance. For instance, a student moving from "far below basic" to "basic" would contribute to a change in the Academic Performance Index score. However, this same student would be considered "not proficient" at both time points. Similarly, a student moving from "proficient" to "advanced" would contribute to the change in the score but would be considered "proficient or advanced" at both time points.
7. Criteria that were used for identifying comparison schools varied depending on the grades the schools served. At the high school level, comparison schools had a performance composite below 66 percent in 2004/05 or 2005/06. At the middle school level, comparison schools had a performance composite below 75 percent in 2004/05 or below 55 percent in 2005/06.
8. The state system of support in Illinois and the Collaborative Assessment and Planning for Achievement initiative in New Jersey were developed as ways to meet the mandates of No Child Left Behind (Cepela, 2008; Sipp, 2008). The Texas Education Code requires that any school that is rated "academically unacceptable" be assigned a technical assistance team (Macias, 2011). In 1996 the North Carolina legislature passed legislation that required low-performing schools to be assigned assistance teams (Johnson, 2008).
9. The 11 conditions are effective district systems for school support and intervention; effective school leadership; aligned curriculum; effective instruction; student assessment; principal's staffing authority; professional development and structures for collaboration; tiered instruction and adequate learning time; students' social, emotional, and health needs; family–school engagement; and strategic use of resources and adequate budget authority.

References

Studies that are included in the literature review are marked with an asterisk.

*Albarracin, L. G. (1999). *The transformational capability of a redesigning process as a corrective action on a failing school: A case study*. (Doctoral dissertation). Minneapolis MN: Walden University.

*Bibian, G. C. (2006). *An ethnographic case study of a reconstituted urban middle school and the factors that contribute to improved ELL redesignation rates*. (Doctoral dissertation). Los Angeles, CA: University of California, Los Angeles.

*Bitter, C., Perez, M., Parrish, T., Gonzalez, R., Socias, M., Salzfass, L., & Estra, P. (2005). *Evaluation study of the Immediate Intervention/Underperforming Schools Program of the Public Schools Accountability Act of 1999. Final report*. Washington, DC: American Institutes for Research. http://eric.ed.gov/?id=ED491621

California Department of Education. (n.d.). *2004–05 API Glossary-Reports*. Retrieved September 29, 2015, from http://www.cde.ca.gov/ta/ac/ap/glossary05g1.asp.

*Cepela, G. D. (2008). School improvement planning in two urban middle schools. *Dissertation Abstracts International*, 68(1), 4554.

*Cruz, P. A. (2007). Implementing a mandated school reform model in low-performing schools: A multiple-case study of four New Mexico schools and their leaders. *Dissertation Abstracts International*, 69(1), 119.

*Davis, J. A. (2007). *Sun Valley Middle School: A case study analysis of a California state scholastic audit school and the development of a clear conceptual framework to turning around a failing school, doubling student performance, and a first-year principal's journey through the audit process*. (Doctoral dissertation). Los Angeles, CA: University of Southern California.

Dillon, E., & Rotherham, A. J. (2007). *States' evidence: What it means to make 'adequate yearly progress' under NCLB*. Washington, DC: Education Sector.

*Dominguez, P. S., Nicholls, C., & Storandt, B. (2006). *A comprehensive assessment of South Carolina's External Review Team Program*. Syracuse, NY: Hezel Associates, LLC. http://eric.ed.gov/?id=ED510046

*Dworaczyk, T. L. (2008). *An exploration of an inner-city school restructuring; resource allocation, classroom practices and student achievement*. (Doctoral dissertation). Santa Barbara, CA and San Luis Obispo, CA: University of California and California Polytechnic State University.

Education Commission of the States. (2015). ECS State Education Policy Database. Denver, CO: Author. Retrieved June 30, 2015, from http://www.ecs.org/html/statesterritories/state_policy_developments.htm.

*Fields, C. M. (2011). *An examination of three Texas high schools' restructuring strategies that resulted in an academically acceptable rating*. (Doctoral dissertation). Denton, TX: University of North Texas. http://eric.ed.gov/?id=ED546386

*Freshwater, R. (2012). *A large urban district's implementation of turnaround policy and practice at the high school level*. (Doctoral dissertation). Madison, WI: University of Wisconsin. http://eric.ed.gov/?id=ED547893

*Goe, L. (2006). Evaluating a state-sponsored school improvement program through an improved school finance lens. *Journal of Education Finance, 31*(4), 395–419. http://eric.ed.gov/?id=EJ750885

*Harr, J. J., Parrish, T., Socias, M., & Gubbins, P. (2007). *Evaluation study of California's High Priority Schools Grant Program: Final report*. Washington, DC: American Institutes for Research. http://eric.ed.gov/?id=ED499197

*Jefferson, D. G. (2006). Teachers' and administrators' perceptions of the Alabama State Takeover Model for public schools: An investigation of effective strategies for accountability. *Dissertation Abstracts International, 68*(1), 1747.

*Johnson, B. O. (2008). The impact of a state assistance team on one low-performing high school: Implications for instructional leadership. *Dissertation Abstracts International, 68*(1), 9.

Klute, M. M., Welp, L. C., Yanoski, D. C., Mason, K. M., & Reale, M. L. (in press). *State policies for intervening in chronically low-performing schools: A 50-state scan* (REL 2016–131). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central. http://ies.ed.gov/ncee/edlabs

*Lane, B., Unger, C., & Rhim, L. M. (2012). *Emerging practices in rapid achievement gain schools: An analysis of 2010–2011 Level 4 Schools to identify organizational and instructional practices that accelerate student's' academic achievement*. Catonsville, MD: Institute for Strategic Leadership and Learning.

*Lane, B., Unger, C., & Rhim, L. M. (2013). *Emerging and sustaining practices for school turnaround: An analysis of school and district practices, systems, policies, and use of resources contributing to the successful turnaround efforts in Level 4 Schools*. Catonsville, MD: Institute for Strategic Leadership and Learning.

*Lane, B., Unger, C., & Souvanna, P. (2014). *Turnaround practices in action: A three-year analysis of school and district practices, systems, policies, and use of resources contributing to successful turnaround efforts in Massachusetts' Level 4 Schools*. Catonsville, MD: Institute for Strategic Leadership and Learning.

*LiCalsi, C., Citkowicz, M., Friedman, L. B., & Brown, M. (2015). *Evaluation of Massachusetts Office of District and School Turnaround Assistance to Commissioner's Districts and Schools: Impact of school redesign grants*. Washington, DC: American Institutes for Research.

*Macias, L. A. (2011). *A case study of the transformation of a low-performing school into a high-performing school*. (Doctoral dissertation). Houston, TX: University of Houston.

Perlman, C. (2013). Summary of states' strategies for ESEA Priority Schools (Solutions, 6). San Antonio, TX: Building State Capacity and Productivity Center. http://eric.ed.gov/?id=ED542916

*Scroggins, R. C. (2012). *The effect of Distinguished Educators on academic gain of Louisiana Academically Unacceptable schools*. (Doctoral dissertation). Ruston, LA: Louisiana Tech University. http://eric.ed.gov/?id=ED547972

*Silander, M. (2012). *School closure in New York City*. (Doctoral dissertation). New York, NY: Columbia University.

*Sipp, L. (2008). *Meeting the challenge of No Child Left Behind: Implementation of a statewide collaborative intervention plan in two urban schools*. (Doctoral dissertation). Indiana, PA: Indiana University of Pennsylvania.

Tannenbaum, C., Boyle, A., Graczewski, C., James-Burdumy, S., Dragoset, L., & Hallgren, K. (2015). *State capacity to support school turnaround* (NCEE No. 2015–412). Washington, DC: Institute of Education Sciences. http://eric.ed.gov/?id=ED556118

*Tapia, R. A. (2008). *Examining the effectiveness of teacher training on the improvement of California standardized test scores at Eva B. Elementary School*. (Doctoral dissertation). Los Angeles, CA: University of Southern California.

*Timar, T. B., & Chyu, K. K. (2010). State strategies to improve low performing schools: California's High Priority Schools Grant Program. *Teachers College Record, 112*(7), 1897–1936. http://eric.ed.gov/?id=EJ896083

*Thompson, C. L., Brown, K. M., Townsend, L. W., Henry, G. T., & Fortner, C. K. (2011). *Turning around North Carolina's lowest achieving schools (2006–2010)*. Raleigh, NC: Consortium for Educational Research and Evaluation–North Carolina.

U.S. Department of Education. (2010). *Guidance on school improvement grants under section 1003(g) of the Elementary and Secondary Education Act of 1965 (Revised June 29, 2010)*. Washington, DC: Author. Retrieved December 17, 2013, from http://ed.gov/programs/sif/sigguidance05242010.pdf.

U.S. Department of Education. (2012). *ESEA flexibility*. Washington, DC: Author. Retrieved October 30, 2013, from http://www.ed.gov/esea/flexibility/documents/esea-flexibility-acc.doc.

U.S. Government Accountability Office. (2007). *No Child Left Behind Act: Education should clarify guidance and address potential compliance issues for schools in corrective action and restructuring status*. Washington, DC: Author. http://eric.ed.gov/?id=ED503478

*Wakelyn, D. J. (2006). *Improving low-performing schools: The role of Kentucky's Distinguished Educators*. (Doctoral dissertation). Madison, WI: University of Wisconsin.

What Works Clearinghouse. (2014). *Procedures and Standards Handbook, Version 3.0*. Washington, DC: Author. http://eric.ed.gov/?id=ED544775

*Woods, G. W. (2004). *Elementary principals' perceptions of successful reform measures used in California's Immediate Intervention of Underperforming Schools Program*. (Doctoral dissertation). Stockton, CA: University of the Pacific.

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The National Center for Education Evaluation and Regional Assistance (NCEE) conducts unbiased large-scale evaluations of education programs and practices supported by federal funds; provides research-based technical assistance to educators and policymakers; and supports the synthesis and the widespread dissemination of the results of research and evaluation throughout the United States.

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Klute, M., Cherasaro, T., & Apthorp, H. (2016). *Summary of research on the association between state interventions in chronically low-performing schools and student achievement* (REL 2016–138). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central. Retrieved from http://ies.ed.gov/ncee/edlabs.

This report is available on the Regional Educational Laboratory website at http://ies.ed.gov/ncee/edlabs.

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