Evidence-Based Comprehensive School Improvement

How Using Proven Models and Practices Could Overcome Decades of Failure

By Patrick Lester
March 26, 2018

Executive Summary

Persistently low-performing schools have been repeatedly targeted for comprehensive reform for more than two decades, usually with poor results. These efforts have suffered, however, because they were often poorly implemented or insufficiently grounded in rigorous research.

The Every Student Succeeds Act (ESSA), enacted in 2015, provides a framework for reversing this track record of failure through the greater adoption of proven, evidence-based practices and programs. ESSA's framework is not perfect, but if it is strengthened it could produce better results for the following reasons:

- **The Number of Evidence-based Programs and Practices, including Whole School Reform Models, Has Grown**: Previous attempts to reform or rapidly turn around low-performing Title I schools have often foundered because they were insufficiently evidence-based, poorly-implemented, or both. However, far more evidence exists today than during the height of these previous turnaround efforts. These evidence-based programs and practices, including several whole school reform models, provide a pathway for proven, evidence-based change.

- **Although They Are Relatively Weak, ESSA Includes Evidence Provisions that Will Encourage Evidence-based School Improvement**: Consistent with its overall goal of returning decision-making authority back to the states, ESSA eliminated the federal School Improvement Grants program and its mandated reform models. In their place, it provided schools and districts with more flexible funding and authority to devise their own reform plans, subject to a requirement that they include one or more interventions that are evidence-based, as defined by the law.

These provisions, which are the focus of this paper, encourage schools and school districts to adopt more evidence-based strategies. By themselves, however, they may not be sufficient to induce widespread change.

ESSA's provisions only require comprehensive school reform plans to include a single intervention that meets the lowest ("promising") of the law's top three evidence tiers. Moreover, the chosen interventions or strategies need not be new. Schools can avoid meaningful change by finding modest evidence that justifies a continuation of existing practices. Under ESSA, schools that wish to avoid evidence-based change can easily do so. Given the political and capacity challenges that confront any change in the status quo, many schools and school districts will likely do the minimum necessary to comply with the law.

---

1 For more information, contact Patrick Lester, Director, Social Innovation Research Center, at (443) 822-4791 or patrick@socialinnovationcenter.org.

• Some States, Districts, and Schools May Exceed ESSA's Minimum Requirements and Become Models for Other Jurisdictions and Schools: While ESSA's evidence requirements for formula-funded programs are weak, both the history of previous reform efforts and the state ESSA plans submitted to the U.S. Department of Education for approval suggest that some jurisdictions will exceed the law's minimum requirements. If they are successful, these evidence-based efforts may follow the pattern of previous education reforms that spread quickly across state lines.

Policymakers could increase the likelihood of success if they adopted the following supportive changes:

• States and School Districts Should Adopt Stronger Evidence Standards than the Minimum Requirements Mandated by ESSA: While ESSA's evidence requirements may be comparably weak, states and school districts can strengthen them by requiring plans for low-performing Title I schools identified for comprehensive improvement to include: (1) at least one new evidence-based intervention; (2) at least one intervention, new or current, that meets ESSA's highest ("strong") evidence standard; and/or (3) a proposal to test the effectiveness of at least one new and innovative practice, possibly as part of a research-practice partnership.

• More States Should Identify Evidence-based Practices and Providers with Strong Track Records: ESSA grants substantial freedom to states to determine which interventions and strategies meet its evidence definitions. Some states have indicated that they are developing, or will develop, lists of proven interventions. More should do so, while simultaneously considering certain needs such as ensuring that the lists are large enough and flexible enough to address gaps identified in school needs assessments.

Given the central role that intermediaries can play in assisting with fidelity and implementation quality, states should also consider vetting developers, providers, and/or consultants.

• Federal Competitive Grants Should Be Used to Bolster Strong Evidence-based Efforts: Each year, the federal government provides over $2 billion in competitive grants for K-12 education. The U.S. Department of Education has already adopted evidence requirements for these grants. They may be further strengthened by their competitive nature. If administered effectively, they could bolster evidence-based efforts at the state and local levels and further build the existing evidence base. States should also make use of federal programs such as the Regional Educational Laboratories and Comprehensive Centers to support their work in these areas.

• States Should Integrate Evidence More Thoroughly Into their Accountability Systems, Grants, and Technical Assistance: To help overcome forces that may resist changes to the status quo, states should better incorporate evidence into their accountability systems, make grants competitive or contingent upon the use of such evidence, and provide targeted assistance that is adapted to the needs of these schools, which typically experience high staff turnover, challenging learning environments, and severe capacity constraints.

The Case for Evidence-Based Reform

One of the most consistent targets of education reform over the past several decades has been the nation’s lowest-performing schools. Sometimes referred to as “drop-out factories” when considered in a high school context, these schools are often dysfunctional in every important way – including poor leadership, low-performing teachers, and disruptive school environments.3

Improving such schools, some argue, requires aggressive whole school transformation. However, after nearly two decades of work — including both rapid school "turnarounds" that featured substantial staff and culture changes and slower, more incremental, comprehensive improvements — these efforts have failed to yield substantial national gains in student achievement.

Despite this disappointing overall track record, however, there have been pockets of success at the state and local levels. These isolated examples suggest that a new strategy rooted in proven, evidence-based practices could succeed where previous efforts have failed.

School Turnarounds: A Track Record of Failure

Federal aid for schools serving disproportionately low-income student populations dates back to the Elementary and Secondary Education Act (ESEA) of 1965, which provided billions of dollars in assistance through Title I, a portion of which was devoted to low-performing schools. ESEA’s enactment was part of a larger policy focus on increased equity, which included civil rights legislation and the Johnson administration’s broader War on Poverty. While greater equity in school funding has been important, however, it has not been sufficient to produce better student outcomes.

Starting in the 1980s, following the publication of A Nation at Risk – a comprehensive report that recommended strengthening school curricula and establishing measurable standards for schools, textbooks, instructional materials, and standardized tests – the nation’s governors and a succession of presidents began to take a heightened interest in the performance of Title I schools.

In 1994, Congress began attaching accountability requirements to Title I funds, but states were slow to implement them. That changed in 2002 with the enactment of No Child Left Behind (NCLB), which strengthened the earlier accountability provisions and authorized additional, targeted aid through a newly-created School Improvement Grants (SIG) program.

In 2009, President Obama strengthened the federal commitment to this framework. Under federal stimulus legislation enacted in the first days of his administration, the SIG program was granted a one-time boost of $3 billion, with an additional $500 million per year in subsequent annual appropriations. These grants provided the affected low-performing schools with up to $2 million per year in assistance over three years and mandated the adoption of the following four school reform strategies:

---

12 The four SIG models are discussed in greater detail in: Institute of Education Sciences, “State Capacity to Support School Turnaround,” May 2015, pp.13-14. Available at: https://ies.ed.gov/ncee/pubs/20154012/pdf/20154012.pdf; Many of the elements of these four models also existed under NCLB, including school choice provisions and various corrective action requirements.
1. **Closure**: Under this option, schools would be shut down and their students transferred to other, higher-performing schools.\textsuperscript{13}

2. **Restart**: Under this option, schools would be closed and restarted as charter schools.

3. **Turnaround**: Under this option, the school principal and 50 percent of the school’s teachers would be replaced. The school would also be required to implement certain reforms.\textsuperscript{14}

4. **Transformation**: Under this option, the principal would be replaced and the school would be required to implement specified reforms.\textsuperscript{15} This option did not require teachers to be replaced, although the reforms included teacher evaluation and accountability provisions.

Starting in 2011, the Obama administration began issuing waivers to NCLB’s accountability provisions that deepened its commitment to turnaround strategies.\textsuperscript{16} These included regulations that directed states to adopt seven core turnaround principles, including those covering school leadership, teaching, additional learning time, instructional practices, data use, school climate, and family engagement.\textsuperscript{17}

These investments usually produced poor results. Early data from the Department of Education showed modest academic gains.\textsuperscript{18} These results were later echoed by a national evaluation of the SIG program, which suggested that it produced modest changes in school-level practices and little overall impact on student achievement.\textsuperscript{19}

After years of significant disruption coupled with modest results, the political tide turned. The Every Student Succeeds Act (ESSA), enacted in 2015, substantially rolled back many of NCLB’s accountability requirements, shifting greater responsibility to the states.\textsuperscript{20} It also eliminated the SIG program and replaced it with a new, more flexible funding stream for states and districts under Title I worth approximately $1 billion per year.\textsuperscript{21} The new law directed districts to devise their own turnaround strategies for these schools, subject to a minimal requirement that they include one or more “evidence-based” interventions that meet one of the law's top three evidence standards.\textsuperscript{22}

---


16 Ibid.


23 This process is described in various parts of the law. ESSA’s provisions governing state accountability systems are in § 1111(c). Provisions for designating schools in need of comprehensive improvement are in § 1111(c)(4)(D)(i). These schools are eligible for Title I school improvement funds under § 1003, which replaced the School Improvement Grants program. Planning requirements for designated schools are described in §§ 1111(d)(1)(B) and 1111(d)(2)(B). ESSA’s evidence definition can be found in § 8101(21)(A). The requirement to use one of the top three evidence tiers is in § 8101(21)(B). ESSA also has a lower tier, “demonstrates a rationale,” but this tier does not apply to Title I school improvement funds (see Appendix A).
Evidence as a Determinant of Success

Looking back, the SIG program is often viewed as a failure, including by the Trump administration, which cited the program’s final evaluation as proof that the Obama administration’s school reform efforts were a waste of resources.\(^\text{23}\) Some conservatives went further, calling the program’s poor results predictable.\(^\text{24}\)

Were they? Some proponents of stronger reform said SIG failed because it was insufficiently ambitious.\(^\text{25}\) School turnarounds are “difficult to impossible” to implement, they said, because of “meddling from teacher unions, the school board, or the central office.”\(^\text{26}\) They claimed that the two most aggressive options – school closure and charter conversion – were the most likely to succeed, but rarely tried.\(^\text{27}\)

Opponents argued the opposite – that SIG failed because it was too aggressive. School closures were unnecessarily disruptive, they said, and the evidence of their effectiveness was weak.\(^\text{28}\) Even the least disruptive options, which required replacing principals (as well as teachers under the turnaround option), presented enormous logistical challenges.\(^\text{29}\) Some school districts merely rotated principals between their schools, for example, and subsequent studies found that replacing principals produced no gains in student achievement.\(^\text{30}\)

Despite the competing claims of ardent supporters and opponents, however, a review of the SIG program’s history suggests a more nuanced answer. More than 90 percent of affected schools adopted one of the two least aggressive programs models – turnaround and transformation.\(^\text{31}\) These two models promoted the use of school practices that did not seem to substantially improve student outcomes.\(^\text{32}\)

There were several reasons for this. First, the practices were insufficiently evidence-based.\(^\text{33}\) This was partly because few rapid-turnaround practices were backed by solid evidence at the time the program was created, something that was also true for turnarounds efforts in the public sector more broadly.\(^\text{34}\)


According to the SIG program’s final national evaluation:

Though research on SIG is limited, a large body of literature examines the effectiveness of the school improvement practices promoted by SIG and school turnaround more broadly. Overall, this literature provides mixed evidence on whether these practices improve student outcomes.35

Second, the SIG program did little to increase the use of such practices.36 The national evaluation found that while SIG schools adopted more practices, the increase was small and statistically insignificant when compared to other schools, many of which had also been adopting these practices because of other federal programs like the Obama administration’s Race to the Top initiative.37

Finally, when schools implemented the practices, they often did so poorly. Low-performing schools commonly face significant staff turnover and severe capacity constraints, which hinder implementation.38 Some schools relied on a “kitchen sink” approach that attempted to apply many different reform strategies at once, with poor coordination and support.39

In short, the turnaround practices that SIG promoted were backed by mixed evidence, not implemented in significantly greater numbers, and often poorly implemented. In this light, the program’s negligible impact on student outcomes overall is unsurprising.

Despite these overall challenges, however, there were also pockets of success.40 Some states like Massachusetts, Ohio, and California appeared to produce better results.41 Some cities like New York and San Francisco also appeared to outperform their peers.42 Analyses cited significant differences in the aggressiveness with which reforms were implemented locally, which may have affected their results.43 Others pointed to substantial differences in state laws and capacities, which may have contributed to variations in effectiveness.44
Rigorous studies also identified some privately-developed whole school reform models with established track records of success, such as Success for All, the Institute for Student Achievement, and the Positive Action System. In 2014, Congress enacted legislation allowing schools in the SIG program to adopt these evidence-based whole school turnaround models, but the change came late in the program’s life. Few schools adopted them before the SIG program was eliminated by ESSA.

Nevertheless, these successes at the state, local, and provider levels suggest a different conclusion about the SIG program and turnaround efforts in general. When such initiatives failed, they may have done so not because school transformation was unworkable, but because the chosen strategies were insufficiently evidence-based, poorly implemented, or both. By contrast, states, schools, and private model developers that overcame those challenges seemed more likely to succeed.

**Evidence Building**

Throughout most of the 1990s and 2000s, when work on school turnarounds was either beginning or just becoming well-established, there was little rigorous evidence to demonstrate its effectiveness. A 2008 review sponsored by the Institute of Education Sciences (IES) at the U.S. Department of Education found no studies of rapid turnaround practices (as opposed to longer-term, comprehensive reforms) that met What Works Clearinghouse standards for experimental or quasi-experimental research. Despite the relative paucity of evidence that existed at the time, however, there has been significant progress since then.

**Individual Practices**

School reforms can target any number of practices, but the turnaround literature has highlighted a small handful of topics as particularly important: principals, teachers, instruction, and school climate.

- **Principals:** According to one comprehensive review, school leadership (broadly defined, but including principals) is one of the most important school-based drivers of student achievement, second only to teachers. Effective school principals hire higher-quality teachers, have teachers who improve faster, and experience lower teacher turnover. An IES review of studies of the School Improvement Grants program found an association between those schools that improved

---


Robert Slavin, "Transforming Transformation (and Turning Around Turnaround)," February 2, 2017. Available at: https://www.huffingtonpost.com/entry/5893b09be4b02bbb1816b8aa


and strong leadership.\textsuperscript{51}

A 2017 RAND literature review identified several evidence-based programs that could improve school leadership. These include the New Leaders Aspiring Principals Program (principal preparation), Texas Principal Excellence Program (principal preparation), National Institute for School Leadership Executive Development Program (professional learning), and principal autonomy (working conditions).\textsuperscript{52}

- **Teachers:** Teachers are the most important in-school driver of student achievement.\textsuperscript{53} Teacher quality can be affected through recruitment, retention, and replacement strategies.\textsuperscript{54} It can also be affected by teacher evaluations coupled with targeted teacher professional development.\textsuperscript{55} Comprehensive school improvement efforts under SIG featured each of these strategies.\textsuperscript{56}

- **Instructional Practices:** Successful schools cultivate an environment of high expectations for academic achievement and use instructional practices that are standards-based, individualized, and rely on research-based teaching methods.\textsuperscript{57} The What Works Clearinghouse has released practice guides on instruction in reading, writing, and mathematics.\textsuperscript{58} It has rated specific programs for literacy, math, science, English Language Learners, students with disabilities, and early childhood (pre-K) instruction.\textsuperscript{59} The independent site Evidence for ESSA has also rated specific math and reading programs like Reading Recovery and Number Rocks.\textsuperscript{60}

- **School Climate:** Learning is easier in schools with safe, orderly school environments that are free of bullying and disciplinary problems.\textsuperscript{61} SIG schools frequently implemented programs intended to promote order and discipline, including adopting school uniforms, hiring additional staff to focus on student behavior management, or instituting specific interventions like Positive Behavior Interventions and Supports (PBIS).\textsuperscript{62} The What Works Clearinghouse has rated several related programs such as First Step to Success and Positive Action.\textsuperscript{63}


\textsuperscript{52} Ibid., pp. 37-55.


\textsuperscript{58} What Works Clearinghouse, “Practice Guides.” Available at: https://ies.ed.gov/ncee/wwc/PracticeGuides

\textsuperscript{59} What Works Clearinghouse, https://ies.ed.gov/ncee/wwc/

\textsuperscript{60} Evidence for ESSA, https://www.evidenceforessa.org/


\textsuperscript{63} See https://ies.ed.gov/ncee/wwc/FWW/Results?filters=Behavior
The importance of these factors has been repeatedly noted in the practitioner literature, usually in the form of general principles, but they are frequently implemented with little demonstrated impact. Evidence-based programs and practices are usually more prescriptive than such principles, however, with strict fidelity requirements for core components such as staffing, activities, and materials. The number of evidence-based programs and practices that meet these criteria is growing, however.

Ongoing funding for additional research on such interventions principally comes from IES, the Education Research and Innovation (EIR) program (formerly the Investing in Innovation program, or i3), and other federal competitive grant programs that include evidence-building requirements. Some states also provide funding for research. Philanthropy also plays a supporting role.

Whole School Models

Individual evidence-based practices may be important, but they may have only modest and incremental effects in a school that is not otherwise being subjected to substantial change. Analyses have suggested that school reform strategies that are more comprehensive and coherent are more likely to succeed.

Today, there are at least six comprehensive reform strategies that are evidence-based, four of which have been independently reviewed and approved by the U.S. Department of Education as meeting evidence requirements for the SIG program. These include:

- **Building Assets, Reducing Risks (BARR):** The BARR program combines small study cohorts with professional development to increase academic performance by 9th graders. A randomized controlled trial (RCT) funded by the federal i3 program found that enrolled students earned more core credits, obtained better grades, experienced lower course failure, and earned higher test scores in reading and mathematics than students not enrolled in the program. The study has been independently reviewed and included in the What Works Clearinghouse.

- **Diplomas Now:** Diplomas Now is a comprehensive school reform program for middle and high schools that provides targeted interventions to students who exhibit “early warning indicators” of poor attendance, behavior, or academic performance. It is based on a partnership between Talent Development Secondary, City Year, and Communities In Schools. According to an interim, multi-site RCT evaluation, after two years it reduced the percentage of students

---


69 See: http://www.barcenter.org/

70 See: http://www.barcenter.org/results


72 See: http://diplomasnow.org/
that their performing at much higher levels than others among states, districts, and schools these surface appearances may be deceiving. The analysis the federal, state, how evidence makes its way into practice This section begins widely adopted? but Evidence Use

There may be more evidence-backed programs and practices today than during earlier efforts at reform, but the existence of such evidence does not guarantee its use. How can such interventions become more widely adopted? What impact, if any, will they have on low-performing Title I schools?

This section begins with a review of ESSA's evidence provisions. It then describes a general model for how evidence makes its way into practice, followed by a review of the specific infrastructures that exist at the federal, state, and local levels that could promote its use.

The analysis concludes by suggesting that while ESSA's evidence provisions may seem to be weak, these surface appearances may be deceiving. As in the past, there will likely be significant variation among states, districts, and schools in their adoption of evidence-based interventions, with some performing at much higher levels than others. If these early adopters succeed, however, history suggests that their success may be sufficient to spread their chosen strategies to other schools across the nation.

- **Institute for Student Achievement (ISA):** ISA is a high school redesign organization that has managed whole school reform efforts in Atlanta, Detroit, and Minneapolis. The model includes college prep, extended school day and year, parental involvement, and other practices. A 2010 evaluation found that it increased high school completion, achievement, and college preparation. It is one of four programs that was approved by the Department of Education as an evidence-based whole school reform model.

- **New York City Small Schools Initiative:** Small schools of choice are high schools with smaller student enrollments that feature personalized relationships and academic rigor. They have been found to improve graduation rates and increase college enrollment. They are one of four whole school programs approved by the Department of Education as evidence-based.

- **Positive Action:** Positive Action is a scripted lessons program for pre-K to high school students. In a matched-pair cluster-randomized RCT it was found to improve academic achievement, absenteeism, and disciplinary outcomes. It was one of four programs approved by the Department of Education as an evidence-based whole school reform model.

- **Success for All (SFA):** SFA is a comprehensive school reform model for students from pre-kindergarten through eighth grade. It includes an extensive reading program, job-embedded professional development, and curriculum resources and strategies for addressing school-wide issues such as low attendance, parental involvement, school culture, family needs, and health issues. In separate studies it has been found to improve reading comprehension and produce positive effects on phonics. It was one of four programs approved by the Department of Education as an evidence-based whole school reform model.

**Evidence Use**

There may be more evidence-backed programs and practices today than during earlier efforts at reform, but the existence of such evidence does not guarantee its use. How can such interventions become more widely adopted? What impact, if any, will they have on low-performing Title I schools?

This section begins with a review of ESSA's evidence provisions. It then describes a general model for how evidence makes its way into practice, followed by a review of the specific infrastructures that exist at the federal, state, and local levels that could promote its use.

The analysis concludes by suggesting that while ESSA's evidence provisions may seem to be weak, these surface appearances may be deceiving. As in the past, there will likely be significant variation among states, districts, and schools in their adoption of evidence-based interventions, with some performing at much higher levels than others. If these early adopters succeed, however, history suggests that their success may be sufficient to spread their chosen strategies to other schools across the nation.

73 MDRC. "Addressing Early Warning Indicators: Interim Impact Findings from the Investing in Innovation (i3) Evaluation of Diplomas Now." June 2016. Available at: https://www.mdrc.org/publication/addressing-early-warning-indicators
74 See: https://www.studentachievement.org/
75 See: https://www2.ed.gov/programs/sif/sigevidencebased/isawsrnarrative.pdf
76 See: https://www2.ed.gov/programs/sif/sigevidencebased/isaevidence.pdf
77 MDRC. "New York City Small Schools of Choice Evaluation." Available at: https://www.mdrc.org/project/new-york-city-small-schools-choice-evaluation#overview
78 See: https://www.positiveaction.net/
79 See: https://www2.ed.gov/programs/sif/sigevidencebased/positiveactionevidence.pdf
80 See: http://www.successforall.org/
ESSA’s Evidence Requirements

At first glance, ESSA’s evidence requirements do not seem to be a promising model for diffusing evidence-based programs and practices. Instead, they seem more in line with the politics that drove ESSA, which were a backlash against what some viewed as a period of federal overreach under NCLB, including under both the Bush and Obama administrations.81

Consistent with this overall direction, ESSA eliminated the SIG program, its four school reform models, and sent substantial decision-making authority over Title I schools back to the states.82 In their place, it established a new approach that allowed districts and schools to adopt their own reform plans, subject to the requirement that they include one or more interventions that were evidence-based.83

These new evidence requirements could be viewed as weak for several reasons. First, the provisions are not new. NCLB also included requirements that its programs be rooted in “scientifically-based research.”84 Second, ESSA only requires that low-performing Title I schools designated for comprehensive improvement have plans that include a single intervention that meets the lowest (“promising”) of the law’s top three evidence tiers.85 Third, the selected evidence-based interventions would not need to be new. A school could minimally comply by finding relatively low “promising” evidence that justified strategies it was already pursuing. In short, ESSA’s evidence provisions by themselves constitute barely a nudge for any district or school that does not wish to change.

This apparent weakness may be deceiving, however. NCLB’s similar requirements for reforms backed by scientifically-based research were undercut by the narrowness of the definition and the general lack of such evidence that existed at the time.86 This is no longer true. While more research is needed, much more exists today than during most of the NCLB era (as described earlier in this paper).

Moreover, while ESSA’s evidence provisions appear to have set a low bar, their potential strength becomes more apparent after considering the surrounding federal, state, and local infrastructures that remain largely intact after its adoption. ESSA may have pushed more control over education decisions to the states, but it did not eliminate the state accountability mechanisms, other capacities, or state and local political dynamics that supported, and continue to support, the reform of low-performing schools.

In short, ESSA may have repealed some of NCLB’s most significant provisions, but NCLB’s legacy remains. ESSA’s evidence provisions may be weak, but other forces that incentivize the use of such evidence may be correspondingly strong, thereby overcoming some of ESSA’s weaknesses.

Three Evidence Pathways

How might ESSA promote the adoption of evidence-based programs and practices? A complete answer requires a more detailed review of existing federal, state, and local laws and capacities. Understanding these processes can be made simpler, however, by viewing them as promoting one or more of the following evidence pathways:

- **Top-Down Evidence Pathway**: Under this pathway, a federal, state, or local government adopts

---


83 ESSA §§ 1111(d)(1)(B) and 1111(d)(2)(B).

84 Sarah Sparks, “NCLB Rewrite Sets New Path on School Research,” *Education Week*, January 5, 2016. Available at: [https://www.edweek.org/ew/articles/2016/01/06/nclb-rewrite-sets-new-path-on-school.html](https://www.edweek.org/ew/articles/2016/01/06/nclb-rewrite-sets-new-path-on-school.html)

85 ESSA § 1111(d)(1)(B)(ii) and § 8101(21).

policies (legislation, budgets, regulations) that induce policy changes by lower levels of government and practice changes in schools. ESSA is an example. Such efforts can themselves be informed by evidence and by the advocacy efforts of intermediaries. This pathway is featured in a profile of turnaround efforts in Massachusetts later in this paper.

- **Bottom-Up Evidence Pathway:** This pathway relies on high-capacity school districts, schools, or nonprofit partners that voluntarily adopt existing evidence-based interventions on their own. The pathway often relies on networks to share information between researchers and practitioners, such as professional associations and informal connections among trusted peers. The bottom-up pathway also includes organizations that develop and test new innovations of their own. This pathway is featured in a profile of San Francisco’s turnaround work later in this paper.

Because it depends on actions originating at the local level, this pathway could be viewed as independent of policies adopted at higher levels of government. In practice, this is rarely true. At a minimum, such work usually depends, at least in part, on public funding for the selected practices. Funding for research on K-12 education issues also predominantly comes from public sources.

- **Provider-based Evidence Pathway:** This pathway is more indirect. Under this approach, governments (and sometimes philanthropic organizations) provide funding to evidence-based program providers, which then reach out to and work with schools and school districts on a voluntary basis. Examples include the scaling efforts that took place in the federal Education Innovation and Research (EIR) program. This pathway is featured in the review of the Success for All model later in this paper.

Evidence use – including the evidence promoted by ESSA’s evidence definitions – relies on all three of these pathways. Understanding how evidence follows these paths, however, requires a better understanding of the varying roles of federal, state, and local actors.

**The Federal Role**

The federal government provides evidence-related assistance for Title I schools in several ways, including:

- **Funding for Research:** While there is some disagreement among policymakers and advocates over the appropriate role of the federal government in education in general, there is more

---


91 New innovations in education can sometimes be identified by examining variations in outcomes. See Improvement Science Research Network, “What is Improvement Science.” Available at: [http://ism.net/about/improvement_science.asp](http://ism.net/about/improvement_science.asp)


agreement about its role as a principal funder of research.\textsuperscript{95} Most funding for K-12 education research comes from the Institute of Education Sciences (IES). Additional funding comes through the Education Innovation and Research (EIR) program.\textsuperscript{96} Many other federal competitive grants also include evaluation incentives or requirements.\textsuperscript{97}

- **Evidence Reviews:** To be useful, research findings must be available to the public and, given the potential methodological problems that confront such research, ideally reviewed by a credible and independent third party.\textsuperscript{98} IES performs both functions. It makes studies available through its Education Resources Information Center (ERIC), an online library of studies and other information.\textsuperscript{99} It also operates the What Works Clearinghouse (WWC), which reviews and rates the studies of specific programs.\textsuperscript{100}

The WWC has been the subject of some criticism, however, including both the timeliness and methodology of its reviews.\textsuperscript{101} These problems are not unique to the WWC. Such clearingshouses often struggle to balance rigor and usability.\textsuperscript{102} However, these issues may have reduced its usefulness. One study on evidence use by schools and districts suggests that the WWC is utilized less frequently than other sources of information, such as professional associations, trusted colleagues, and even newspapers and magazines.\textsuperscript{103}

- **Formula Grant Requirements:** The existence of evidence is not sufficient to guarantee its use. ESSA has bridged this gap by defining “evidence-based” (see Appendix A) and attaching this definition to the requirements of several formula and competitive grants (see Appendix B). The influence of these definitions differs for these two types of grants, however.

Perhaps owing to the underlying politics of ESSA, which reflected a reaction against perceived federal excesses under NCLB, the Department of Education has taken a lighter approach for formula grants. For these grants – including Title I funds for schools and Title II funds for teacher and principal-related programs – the Department of Education has issued only non-binding, non-regulatory guidance for implementing ESSA’s evidence provisions.\textsuperscript{104}

The department has maintained some oversight responsibilities through its authority to approve state plans, but it does not seem to have used this authority to influence state decisions on the use of evidence.\textsuperscript{105}


\textsuperscript{99} See: https://ies.ed.gov/

\textsuperscript{100} See: https://ies.ed.gov/ncee/wcc/

\textsuperscript{101} Robert Slavin, "The Mystery of the Chinese Dragon: Why Isn’t the WWC Up to Date?”, November 30, 2017. Available at: https://www.huffingtonpost.com/entry/the-mystery-of-the-chinese-dragon-why-isn’t-the-wwc_us_5a1f11a3e4bd039242f8c8151; The Laura and John Arnold Foundation's Straight Talk on Evidence project has issued a number of criticisms of its methodology. See: http://www.straighttalkonEvidence.org/category/k-12-education/


\textsuperscript{103} National Center for Research in Policy and Practice, "Findings from a National Study on Research Use Among School and District Leaders;” April 2016, p. 33. Available at: http://ncrpp.org/assets/documents/NCRPP_Technical-Report-1.pdf


\textsuperscript{105} Results for America, "ESSA Leverage Points: 50 State Report,;” January 12, 2018, p. 35. Available at: https://results4america.org/tools/essa-leverage-points-50-state-report-promising-practices-using-evidence-improve-student-outcomes/
• **Competitive Grant Requirements:** The U.S. Department of Education has taken a stronger role on evidence in its competitive grants, which together amount to over $2 billion in assistance per year for K-12 education. In 2017, the department issued regulations governing the use of evidence in these grants.

Competitive grants are a potentially powerful tool for influencing state, district, and school decision-making. The potential influence of these grants was amply demonstrated by the federal Race to the Top initiative. Depending on how they are administered, these grants could provide incentives for greater use of evidence that are largely missing from the department’s formula grants. A list of federal programs affected by ESSA’s evidence provisions, including competitive grants, is in Appendix B.

• **Technical Assistance:** The U.S. Department of Education provides technical assistance to states, districts, and schools in two primary ways. IES provides technical assistance to state education agencies, districts, postsecondary institutions and other education stakeholders through its Regional Educational Laboratories (RELS). The Office of Elementary and Secondary Education also provides technical assistance to state education agencies through its 22 Comprehensive Centers.

The State Role

Constitutionally, most power over schools originates at the state level. While states have delegated much of this authority to local school districts, they have also retained substantial influence through a combination of accountability systems, monitoring, grants, and technical assistance. The associated legal authority and state capacities vary widely from state to state, however. These factors include:

• **State Accountability Systems:** Among the many tools that states possess, accountability systems probably play the central role in driving change in low-performing Title I schools. Under ESSA, these systems determine which schools will be subjected to mandatory school

---


107 Federal Register, "Department of Education: Definitions and Selection Criteria That Apply to Direct Grant Programs," July 31, 2017. Available at: https://www.federalregister.gov/documents/2017/07/31/2017-15989/definitions-and-selection-criteria-that-apply-to-direct-grant-programs

108 William G. Howell, "Results of President Obama’s Race to the Top," Education Next, Fall 2015. Available at: http://educationnext.org/results-president-obama-race-to-the-top-reform

109 The RELs work in researcher-practitioner partnerships with staff from state education agencies, districts, postsecondary institutions and other non-partisan educational organizations to solve education problems through research, or research-based training, coaching or technical support. They also focus on building stakeholder capacity to use research and data to inform education programs and policies. The Comprehensive Centers work primarily with state education agency staff, and they focus on helping these staff to support districts and schools in the implementation and administration of the programs authorized under ESSA. The Comprehensive Centers use research-based information and strategies to do this. Information on the comprehensive centers is available at: https://www2.ed.gov/programs/newccp/index.html,


113 ESSA’s provisions governing state accountability systems are in §1111(c). See also GAO, "Every Student Succeeds Act: Early Observations on State Changes to Accountability Systems," July 18, 2017. Available at: https://www.gao.gov/products/GAO-17-757T.
improvement requirements. They determine which schools will be eligible for school improvement funding. They dictate ongoing performance monitoring. They also commonly include provisions for stronger interventions for schools that do not improve.

- **Technical Assistance with School Needs Assessments:** ESSA requires school districts to develop improvement plans for each school that has been designated for comprehensive school improvement. Such plans must include a needs assessment and at least 13 states are providing assistance on these assessments. These assessments, and the school improvement plans in general, are discussed in greater detail in the next section.

- **State-devised Lists of Evidence-based Interventions:** Following the needs assessment, school districts and schools must develop a comprehensive improvement plan with at least one evidence-based intervention that falls within the law’s top three evidence tiers (promising, moderate, or strong). Fifteen states are helping schools and school districts by developing lists of interventions that meet ESSA’s evidence standards. Such lists may incorporate reviews conducted by the WWC at the U.S. Department of Education (discussed earlier).

- **State Approval of School Improvement Plans:** At least five states have included provisions in their state ESSA plans describing actions they will take to assist schools and districts with their school improvement plans, including the inclusion of evidence-related provisions. The final plans must also be approved by the state education agency, which gives the state additional influence over its contents.

- **Use of Conditional or Competitive Grants:** ESSA allows states to distribute school improvement funds on a conditional or competitive basis, which allows them to incentivize the choice of interventions with greater evidence. At least 14 states have tied some portion of their school improvement funds to the use of such evidence.

- **Ongoing Technical Assistance:** Evidence-based programs frequently fail to produce positive results because they are poorly implemented. Many ESSA state plans have described how they will monitor local implementation, provide technical assistance, and evaluate these efforts.

---


117 ESSA § 1111(d)(1)(B)


119 ESSA § 1111(d)(1)(B)(i)


121 ESSA § 1111(d)(1)(B)(v)


123 ESSA § 1003(b)(1)(A)


126 Results for America, "ESSA Leverage Points: 50 State Report," January 12, 2018, pp. 22-24. Available at:
In some cases, they may incentivize schools and districts to work with approved outside providers with experience with the selected programs.

- **Continuous Improvement:** In their ESSA plans, at least 16 states described continuous improvement efforts by schools, school districts, and the state. For example, Tennessee plans to study its fastest improving schools and share lessons learned with all of its schools. In Vermont, every school and school district must submit continuous improvement plans to the state and will receive technical assistance rooted in improvement science. Georgia has adopted a similar Systems for Continuous Improvement framework that also relies on improvement cycles.

- **State-funded Research:** Many states are also supporting school improvement through state-funded research. Some states have research consortia (often located in large cities) that work with schools, including the Tennessee Education Research Alliance, the Education Research Alliance of New Orleans, and the Research Alliance for New York City Schools. These organizations also receive funding from other sources. When research is conducted or funded by the state, it may also be driven by a state-devised research agenda, which can focus limited resources on the most pressing research questions.

**The Local Role (Schools and School Districts)**

Under ESSA, after a state has designated a school as being in need of comprehensive improvement, the appropriate school district must devise a plan for the school that includes one or more interventions that are evidence-based. This process can include the following components.

- **Needs Assessments:** As was briefly mentioned earlier, the first step after a school has been designated for comprehensive improvement is to conduct a formal needs assessment. Such assessments commonly review student achievement and identify the causes of the school’s poor performance. They often review contextual factors, such as the school environment and student characteristics, as well as the school’s strengths and weaknesses. They commonly draw on school data, focus groups, surveys, and site visits for information. They could also include an inventory of existing programs, possibly including a review of their underlying evidence.

---

128 Ibid., pp. 12-14.
129 Carnegie Foundation for the Advancement of Teaching, "The Six Core Principles of Improvement." Available at: https://www.carnegiefoundation.org/our-ideas/six-core-principles-improvement/
131 Many are members of the National Network of Education Research-Practice Partnerships (NNERPP). http://nnerpp.rice.edu/
134 ESSA, § 1111(d)(1)(B)(iii); § 1114(b)(6).
Choice of Evidence-based Interventions: Following the needs assessment, school districts and schools must work together with stakeholders to create a school plan that includes at least one evidence-based intervention that falls within ESSA’s top three evidence tiers (promising, moderate, or strong).\(^{137}\)

In an ideal world, this would be a rational process. School improvement plans would focus on the gaps identified in the needs assessment, review existing programs, and recommend modifications or new programs based on credible evidence.\(^{138}\) In reality, stakeholder politics play a central role and these politics may produce plans that are less rational and more influenced by local power dynamics.

Such plans normally involve the formal school leadership, often including the district superintendent and/or district staff, school board, and principal of the school.\(^{139}\) Other stakeholders may include teachers, parents, and outside organizations such as teachers’ unions or nonprofit organizations that work with the schools.\(^{140}\) ESSA itself mandates the participation of such stakeholders in the development of school improvement plans.\(^{141}\)

Support for any proposed course of action in a school improvement plan may vary substantially among the various actors. This support may be influenced by information in the formal needs assessment and any evidence reviews, but it is also likely to be shaped by differing political beliefs, professional judgment, and the extent to which proposed changes in the status quo are viewed as threatening.\(^{142}\) Such support may also change over time, rising or falling depending upon the perceived challenges in the school, perceived success of existing policies, and changes in key personnel.\(^{143}\)

The state can also play a central role in this process. As described earlier, state accountability systems can create substantial incentives for local actors to adopt stronger plans.\(^{144}\) Some states may require districts to choose among state-approved lists of interventions and providers.\(^{145}\) Under ESSA, the state must also approve the final version of the plan.\(^{146}\)

The final decision on a school improvement plan is likely to depend greatly on these local and state power dynamics and on bargaining among the various actors. These politics will likely influence how aggressive, incremental, coherent, or comprehensive the school improvement plan will be.\(^{147}\) The role of evidence in this process will vary. In some cases, it may simply be used to

\(^{137}\) ESSA, § 1111(d)(1)(B)


\(^{141}\) ESSA, §§ 1111(d)(1)(B) and 1111(d)(2)(B)


\(^{146}\) ESSA, §1111(d)(1)(B)(v)

justifies a continuation of existing policies. In other cases, it may produce significant change.\footnote{148}

- **Program Launch**: After a school plan has been approved, the next step is to do the early work necessary to put it in place. This can include adoption of needed policies, regulations, or budgets.\footnote{149} It can include hiring, obtaining staff buy-in, training, and contracting with external providers.\footnote{150} It can also include obtaining assets and materials such as work space, practice manuals, and data systems for case management, performance monitoring, and audits.\footnote{151}

- **Ongoing Implementation**: Effective replication of an evidence-based program or practice typically requires a balance between fidelity to core program components and adaptation to local conditions, combined with sufficient leadership, staff competency and organizational capacity.\footnote{152}

  Core components can include practice elements, equipment and related materials, personnel qualifications, and training.\footnote{153} Fidelity is usually monitored on an ongoing basis to ensure performance, sometimes using proprietary metrics or tools.\footnote{154} Fidelity measures vary tremendously from model to model, but examples can include class size, task checklists, assessments of quality (including through third-party observations), and staff education, training, and certifications.\footnote{155}

  Such attention to detail is one reason why successful implementation often requires an experienced outside intermediary. Higher-capacity schools and program providers may also choose to incorporate such fidelity measures into their performance management systems.\footnote{156}

- **Evaluation and Continuous Improvement**: After an evidence-based intervention has been implemented, there is often room for improvement.\footnote{157} Ideally, such innovations should be made carefully, since altering a program’s core features departs from fidelity and can produce results that are worse, not better.

  Evaluations can answer this question and contribute to the evidence base.\footnote{158} Such research can be costly, however, and often requires significant outside expertise, often in the form of research-practice partnerships.\footnote{159} Funding can come from a variety of public or private sources.\footnote{160}

\begin{enumerate}
\item\footnote{149} National Implementation Research Network, Implementation Drivers: Facilitative Administration. Available at: http://nirn.fpg.unc.edu/learn-implementation/implementation-drivers/facilitative-administration
\item\footnote{150} National Implementation Research Network, Implementation Drivers: Selection. Available at: http://nirn.fpg.unc.edu/learn-implementation/implementation-drivers/selection
\item\footnote{151} Kerstin Carlson Le Floc’h, et al, “Case Studies of Schools Receiving School Improvement Grants,” April 2016. Chapter 6. Available at: https://eric.ed.gov/?id=ED565615
\item\footnote{152} National Implementation Research Network, Implementation Drivers: Decision Support Data System. Available at: http://nirn.fpg.unc.edu/learn-implementation/implementation-drivers/dss
\item\footnote{153} National Implementation Research Network, Implementation Drivers: Innovations Defined. Available at: http://nirn.fpg.unc.edu/learn-implementation/innovations-defined
\item\footnote{156} Carnegie Foundation for the Advancement of Teaching, “The Six Core Principles of Improvement.” Available at: http://www.carnegiefoundation.org/our-ideas/six-core-principles-improvement/
\item\footnote{158} Virginia Knox, et al, “Can Evidence-Based Policy Ameliorate the Nation’s Social Problems?” MDRC. https://www.mdrc.org/sites/default/files/2018_Can_Evidence-Based_Policy_Ameliorate_Final.pdf
\item\footnote{159} More information on research-practice partnerships can be found at the Research-Practice Partnership Knowledge Clearinghouse, which is run by the National Network of Research Practice Partnerships (NNERPP): at: http://nnrpp.rice.edu/rpp/knowledge-clearinghouse/
\item\footnote{160} States and districts can often receive federally-funded assistance from the Regional Educational Laboratories free-of-charge or
\end{enumerate}
The Provider Role

Depending on their choice of evidence-based interventions, some schools may choose to work with outside service providers (frequently the model developer) to ensure effective implementation. Many model developers have proven track records of successful replication that are validated by rigorous third-party evaluations.  

Such providers can bring numerous benefits, including materials, validated measurement tools, ongoing training, and participation in networks with other schools that are implementing the same program. Some providers also update their models to keep them current with the latest developments in the field. The work of one comprehensive school improvement provider, Success for All, is discussed later in this paper.

Will Evidence-based Reform Succeed?

Will evidence-based strategies for improving low-performing Title I schools work? At least with respect to ESSA, it is too early to know.

There are several reasons to be pessimistic. One is the modest progress made under NCLB and the SIG program, which seemed to show that even dramatic reforms backed by billions of dollars of assistance are not sufficient by themselves to consistently improve these schools.

ESSA’s evidence provisions are also relatively weak, requiring only that comprehensive school plans include one or more interventions that meet the lowest (“promising”) of the law’s three top evidence definitions (see Appendix A), with no requirement that such interventions be new to the school. Given the central role of stakeholder politics in the plan development process and a likely preference for the status quo, there is ample reason to believe that many schools will do little more than the minimum necessary, citing whatever evidence justifies their existing activities, and producing little real change.

There are other reasons to be optimistic, however. Decades of previous reform efforts – including the standards-based reforms of the 1990s, accountability systems developed under NCLB, targeted assistance under SIG, and additional reforms under Race to the Top – have left a legacy and infrastructure that remain largely intact. This infrastructure failed to produce widespread improvements in the past, but this may be because it was tied to a reform agenda that was insufficiently evidence-based.

Moreover, while some states, districts, and schools may only minimally comply with ESSA’s evidence requirements, the history of previous reform efforts under NCLB suggests that some jurisdictions and schools will substantially exceed them. Variations in state efforts are already evident in the early ESSA plans submitted to the U.S. Department of Education (as described in the section discussing the state role). Finally, more jurisdictions may be willing to pursue stronger evidence-based measures because,

---


162 An example of provider-driven development and evaluation of innovations to their existing model can be found in David Olds, et. al., “Improving the Nurse-Family Partnership in Community Practice,” Pediatrics: Volume 132, Supplement 2, November 2013. Available at: http://pediatrics.aappublications.org/content/pediatrics/132/Supplement_2/S110.full.pdf

163 ESSA § 1111(d)(1)(B)(ii) and § 8101(21)


165 For example, only a handful of states have opted out of Common Core standards. States have more flexibility under ESSA’s accountability provisions but must still identify and take action on their worst performing schools. Only a few states have rolled back NCLB-era standards for teachers. See: Daarel Burnette II, "Testing Proves Volatile Part of State Legislative Mix," Education Week, April 19, 2016. Available at: https://www.edweek.org/ew/articles/2016/04/20/testing-proves-volatile-part-of-state-legislative.html; Alyson Klein, "Obama’s Legacy on K-12 One of Bold Achievements, Fierce Blowback," Education Week, January 10, 2017. Available at: https://www.edweek.org/ew/articles/2017/01/11/obamas-legacy-on-k-12-one-of-bold.html; Daarel Burnette II, “ESSA Poses Capacity Challenges for State Education Agencies,” Education Week, January 19, 2016. Available at: https://www.edweek.org/ew/articles/2016/01/20/essa-poses-capacity-challenges-for-state-education.html
Unlike NCLB, ESSA does not mandate any particular reform agenda. This could allow schools to adopt strategies that are better suited to local conditions and more likely to command local political support.

While many of these efforts will likely fail, the history of the SIG program suggests that some will succeed. Those early successes may be sufficient to spread evidence-based strategies to other states, districts, and schools through a process known as policy diffusion. Such diffusion can occur through any (or all three) of the evidence pathways described earlier – bottom-up, top-down, and provider-based.

Many education reform efforts – including curriculum reforms and charter schools – have shown that innovations can spread rapidly in this fashion. Even if only some of the early adopters of evidence-based practices are successful in the first few years, those early successes – coupled with these diffusion processes – may provide the basis for greater adoption of evidence-based programs across the rest of the nation.

Profile: District-Driven Reform

The San Francisco Unified School District (SFUSD) is one of the few districts in the nation to have implemented a successful school transformation initiative under the federal SIG program. The district’s work began in 2010 with the establishment of a Superintendent’s Zone, a coordinated strategy for school improvement that grew out of an earlier strategic planning effort.

The Zone’s central strategy was based on research by Anthony Bryk and colleagues at the University of Chicago Consortium on School Research. Bryk’s work has identified five supports as necessary for school improvement, including: (1) building leadership capacity; (2) providing instructional guidance; (3) building professional capacity; (4) creating a student-centered learning climate; and (5) strengthening parent-community ties.

The district’s Superintendent’s Zone includes 16 of its schools, ten of which were identified as persistently low-achieving by the state of California and received $45 million in funding from the SIG program. The Zone’s work included many of the district-level activities described earlier in this paper.

- **Needs Assessment:** To begin the process, the district created a needs assessment team that included the district superintendent, chief academic officer, deputy superintendent, and representatives of the district’s Research, Planning, and Assessment Department. A data profile was created for each of the Zone schools, including information on student demographics, student achievement and growth, teacher experience and turnover, and academic and behavioral performance and trends, with results disaggregated by race and by program.

As part of the process, school principals were asked to provide information about their previous and current improvement efforts and the supports that they believed were most needed in their schools. The needs assessment concluded that “the problem of low performance in schools was


168 This profile draws heavily from AEM Corporation, “Evidence-based Practices in School Improvement: Five Profiles of Promising Practices,” November 2016, pp. 54-76. Available at: [https://www2.ed.gov/about/offices/list/oe/se/schoolimprovement/evidencebasedpracticesch.pdf](https://www2.ed.gov/about/offices/list/oe/se/schoolimprovement/evidencebasedpracticesch.pdf)

169 Anthony Bryk, et al., *Organizing Schools for Improvement: Lessons from Chicago*, The University of Chicago Press, 2010. For more information on the consortium, see: [https://consortium.uchicago.edu/](https://consortium.uchicago.edu/)

a systemic problem, requiring a systemic solution."

- **Choice of Evidence-based Interventions:** The district spent a year studying the Bryk framework, including both its research base and implementation requirements. The resulting Zone design choices were informed by the framework’s five supports.

  - **Building Leadership Capacity:** As required by the SIG program, principals were removed from SIG-funded schools. The district used strategic recruitment to select new principals within the district and/or principals with experience with previous school turnaround efforts. Principals were selected who were like-minded, aligned with the mission and goals of the Zone, and prepared to lead and implement research-based change.

  - **Providing Instructional Guidance:** Instructional improvement was a central feature of the district’s reform efforts, with a heavy focus on implementing a core-curriculum and job-embedded, one-on-one coaching. The district partnered with several outside organizations to help improve its math and literacy instruction, including Teacher’s College, Literacy Collaborative, the WRITE Institute, Partners in School Innovation, Algebraic Thinking & the Algebra Project, Project SEED, and Tools for Schools.

    The district also developed one-page documents, called “Salmon Sheets,” that outlined frameworks for teaching staff that aligned curriculum, instruction, and assessments. The Salmon Sheets included information on expectations, assessments, and details such as pacing, scope, and instructional sequences.

  - **Building Professional Capacity:** The district established Instructional Learning Teams (ILTs) at each school to support teacher professional development. The ILTs consisted of the principal, an instructional reform facilitator, literacy coaches, two classroom teachers, and other key leadership staff. These teams collected information on teacher progress through ongoing rounds of classroom observations that relied on a standard protocol. This information was then used to make adjustments and inform subsequent teacher professional development.

    The district also hired instructional coaches at each school to provide one-on-one support to teachers in implementing the Zone’s instructional frameworks. It also created a network that connected the school ILTs with one another to share best practices.

  - **Creating a Student-Centered Learning Environment:** Zone schools adopted an extended learning time strategy, including after school and summer learning programs. Schools adopted an early warning system to monitor student progress. The schools also adopted a college going culture.

  - **Strengthening Parent-Community Ties:** The district established a family liaison at each Zone school and at the overall Zone-level. The schools also adopted a full service community schools strategy to connect students and family members with relevant community-based partner organizations that provided social services or other assistance.

---

171 A review of the literature on coaching and other teacher professional development strategies can be found in: Linda Darling-Hammond, Effective Teacher Professional Development (2017). Available at: https://learningpolicyinstitute.org/product/effective-teacher-professional-development-report;


• **Program Launch:** Launch efforts included recruiting new principals, establishing the Instructional Learning Teams at each school, hiring and training instructional reform facilitators and instructional coaches, and establishing relationships with external partners.

• **Ongoing Implementation:** Continuous improvement was a central feature of the district’s efforts. Using a model called the Results-Oriented Cycle of Inquiry (ROCI) developed by Partners in School Innovation, the district supported the school-based instructional reform facilitators in their continuous improvement efforts. The district also developed a school capacity rubric to rate schools based on the Bryk framework.

• **Evaluation:** The district established a research-practice partnership between its Research, Planning, and Assessments team and Stanford University. This partnership supports as many as 30 ongoing collaborations between researchers at Stanford and the district at any given time. This research has helped inform district decision-making and has also provided insights that are potentially generalizable outside of San Francisco.

According to an independent study, which used a difference-in-differences methodology to compare the district’s SIG schools to its non-SIG schools, San Francisco’s efforts appear to have produced positive effects on student outcomes. After three years of implementation, the district’s SIG schools experienced improvements in both student attendance and achievement (English language arts and mathematics). Families expressed greater satisfaction with the schools. The schools also experienced greater retention of effective teachers.

**Profile: State-Driven Reform**

Massachusetts is one of the leading states in the nation on school turnarounds. Unlike other efforts across the nation, which have generally been lackluster, the state’s efforts have met with significant success. Why has the state’s experience been so different? One reason may be its singular focus on developing and scaling evidence-based practices as a central feature of its school turnaround efforts.

**History and Political Context**

At first glance, the state’s leadership on school turnarounds might seem unexpected. Nationally, education reform politics commonly pit centrist Republicans and Democrats against opponents on the left (led by teachers’ unions) and on the right (led by social conservatives). Because Massachusetts is one of the most liberal states in the nation, with teachers’ unions acting as a major political force, its leadership on school turnarounds might seem an exception to the rule.

Despite its reputation as a bastion of the left, however, the state has been led by a series of socially

---

174 For more information about the partnership, see: [http://collaborate.caedpartners.org/display/stanfordsfusd](http://collaborate.caedpartners.org/display/stanfordsfusd)
liberal, business-oriented Republican governors since the early 1990s. The sole exception, Governor Deval Patrick, was a business-friendly Democrat who was closely aligned with President Obama. Each of these governors supported education policies that were largely aligned with education reformers nationally.

This supportive political environment appeared to produce results. State law governing school turnarounds can primarily be traced to two bills enacted by the legislature during this period. The first, the Massachusetts Education Reform Act, was enacted in 1993 under Republican Governor William Weld. Consistent with the broader push for standards-based education reform that had been occurring nationally in the 1990s, the law authorized the development of state curriculum standards and student assessments. The state began administering its first student tests under the law in 1998, later expanding them after No Child Left Behind was enacted at the federal level in 2002. That same year, the state began designating some schools as "underperforming" based on multiple indicators.

The next significant expansion came in 2010 under Governor Patrick. Partly to better position the state for a federal Race to the Top grant, the administration successfully pushed through the Massachusetts Achievement Gap Act. This law substantially strengthened state authority over low-performing schools, with the worst being subjected to possible direct state control. The efforts paid off when the state won a Race to the Top grant later that year.

**Strategies for Scaling Evidence**

School turnaround efforts in Massachusetts, including efforts to scale the use of evidence-based practices, largely depend on an infrastructure that was created by these earlier politics and policies. This infrastructure – which includes significant state research capacity, accountability mechanisms, and targeted assistance – is explained in greater detail below:

- **Ongoing State Research:** One strategy that has set Massachusetts apart from other states is its ongoing investment in state-funded research, which is overseen by its Office of Planning and Research. Shortly after the 2010 law was enacted, the state funded a series of studies that evaluated both the effectiveness of its turnaround efforts as a whole as well as the individual practices that seemed most associated with schools that were turned around successfully.

  The research – which focused on both implementation and impact – rolled out in stages, starting in 2012. In 2014, the state released a study identifying four broad sets of practices that seemed most important: (1) leadership; (2) instructional practices; (3) student supports; and (4) school climate and culture. Subsequent research, led by AIR, fleshed out subtopics for each of the four broad categories, including those related to instruction, expanded learning time, and family engagement.

---


181 Mitchell Chester, "Building on 20 Years of Massachusetts Education Reform," November 2014. Available at: [http://www.doe.mass.edu/commissioner/BuildingOnReform.pdf](http://www.doe.mass.edu/commissioner/BuildingOnReform.pdf)

182 Ibid, p. 18. Current accountability regulations governing turnarounds are available at: [http://www.doe.mass.edu/lawsregs/603cmr2.html](http://www.doe.mass.edu/lawsregs/603cmr2.html)


185 Massachusetts Department of Elementary & Secondary Education, "Turnaround Practices Research and Evaluation Reports." Available at: [http://www.doe.mass.edu/turnaround/howitworks/reports.html](http://www.doe.mass.edu/turnaround/howitworks/reports.html)

186 These four broad sets of practices are similar to those found in WestEd Center on School Turnaround, "Four Domains for Rapid School Improvement: A Systems Framework," February 2017. Available at: [http://centeronschoolturnaround.org/four-domains/](http://centeronschoolturnaround.org/four-domains/)

The underlying research for the practices is maintained on a state web page. These research efforts are also continuing under a state-devised research plan.

- **State Accountability System:** While research can help identify evidence-based practices, it is not usually sufficient on its own to drive local school districts and schools to adopt them. In Massachusetts, the central driver in its school turnarounds efforts is the state’s accountability system, which was created by the 1993 and 2010 laws, and by subsequent regulations issued by the state board of education. This accountability system has also been a major driver of increased evidence use in these schools.

Under the state’s accountability system, schools are placed into one of five categories based on their performance. High-performing schools (Level 1) receive substantial autonomy. Mid-tier schools (Levels 2 and 3) are subject to increased state oversight and are eligible for targeted state assistance. Low-performing schools (Levels 4 and 5) are subject to the greatest regulatory oversight, including turnaround requirements and possible state takeover. As many as four percent of the state’s schools can fall into the lowest two categories under state law.

Schools that have been designated as Level 4 must create a state-approved school improvement plan. As part of the plan, schools must address each of the state’s four broad sets of evidence-based turnaround practices (leadership, instruction, student supports, and school climate), but they are also given substantial flexibility on the details, including the selection of individual strategies within those sets of practices.

Despite this flexibility, the accountability system provides substantial incentive for the schools to adopt strategies that are effective – the most important of which is the threat of a state takeover. The schools are also subject to significant ongoing performance monitoring by the Statewide System of Support Office, including annual site visits that assess implementation. They can track their progress through a state-operated data benchmarking system. They also receive additional help in the form of state grants and technical assistance (see below).

When schools fail to improve they are designated as Level 5 and subject to state takeover. Schools designated for takeover are then assigned to a receiver, typically individuals or outside nonprofit organizations with a track record of turning around such schools. Four schools have

---


190 Massachusetts Department of Elementary & Secondary Education, “603 CMR 2.0: Accountability and Assistance for School Districts and Schools.” Available at: http://www.doe.mass.edu/lawsregs/603cmr2.html

191 Massachusetts Department of Elementary & Secondary Education, “Massachusetts’ System for Differentiated Recognition, Accountability & Support.” Available at: http://www.doe.mass.edu/turnaround/howitworks/ma-system.html


195 Massachusetts Department of Elementary & Secondary Education, “Monitoring Site Visits.” Available at: http://www.doe.mass.edu/turnaround/howitworks/monitoring.html


197 Massachusetts Department of Elementary & Secondary Education, “Resource Allocation and District Action Reports (RADAR).” Available at: www.doe.mass.edu/research/radar/


199 Massachusetts Department of Elementary & Secondary Education, “Level 5 District Turnaround Receivers.” Available at: http://www.doe.mass.edu/level5/districts/
been subjected to this process. Schools must make significant progress before they can exit takeover status.

- **Grants and Technical Assistance**: As they pursue improvement efforts, schools and districts are eligible for various forms of assistance. These include School Redesign Grants, which are federally-funded competitive grants designed to provide needed resources and capacity. Schools and school districts also receive direct technical assistance from the state. This has included the development of a field guide based on the state's earlier research on evidence-based practices, a variety of practice-oriented videos, and direct assistance from state employees for Level 4 and 5 schools.

Finally, the state has identified what it calls "priority partners" for schools and districts engaged in turnaround efforts. These organizational partners have been vetted by the state "through a rigorous review process as having a demonstrated record of effectiveness in accelerating school improvement."

Overall, the state's approach to promoting the use of evidence amounts to what some call a combination of "pressure and support." The state school accountability system, including the implied threat of a state takeover, provides the "pressure," although it does so while simultaneously granting schools significant flexibility in the choice of individual strategies within the four sets of evidence-based practices. The "support" is provided through continued state research, competitive grants, and technical assistance.

How well has it worked? According to an independent evaluation, the state's school improvement efforts have produced increased student achievement. Probably as a result, as of January 2017, 57 percent of the state's turnaround schools had exited turnaround status.

**Profile: Provider-Driven Reform**

Model developers are another driver for scaling evidence-based whole school reforms. These organizations lack the regulatory and budgetary tools available to states, but they nevertheless play central roles in growing and successfully replicating their models, usually through a combination of grant-seeking, direct marketing to schools and districts, and ongoing implementation support.

One example is Success for All (SFA), a reading-focused comprehensive school reform program for pre-kindergarten through eighth grade. SFA has been shown to generate positive student outcomes in several studies in its over three decades of existence. It is also one of four whole school...

SFA's growth provides insights on provider-based scale. How has the organization expanded the use of its model? How does it ensure implementation quality?

**Marketing**

For model developers, scaling comes primarily through direct marketing to schools and school districts. While SFA is a nonprofit organization, it must confront the same issues of supply and demand that face other products or services.

On the demand side, the organization has benefitted from large-scale federal policy changes, particularly the creation of the Comprehensive School Reform program in 1998 and the Investing in Innovation (i3) program in 2010. These programs both provided resources, but the organization still needed to market itself to schools to expand its network. Its marketing activities included standard practices such as public relations, conference presentations, and the distribution of information through education-related outlets. The most effective strategies have usually been word-of-mouth and recruiting new schools through existing district partnerships.\footnote{MDRC, "The Success for All: Model of School Reform: Final Report from the Investing in Innovation (i3) Evaluation," 2015, p. 19, p. 139. \url{https://www.mdrc.org/publication/scaling-success-all-model-school-reform}; \url{https://www.mdrc.org/publication/scaling-success-all-model-school-reform} and recruiting new schools through existing district partnerships.} Establishing new partnerships with schools involves more than outreach, however. Cost has also played an important role. Effective implementation of evidence-based models requires resources for materials, training, and oversight (described below), and such costs must be paid for. In some cases, these costs have been subsidized through federal, state, or philanthropic grants. In other cases, however, some or all of the costs must be covered by fee-for-service arrangements with the schools, which could amount to tens of thousands of dollars per year.\footnote{Blueprints for Healthy Youth Development, "Success for All." Available at: \url{http://www.blueprintsprograms.com/factsheet/success-for-all}; These costs are a relatively small when considered on a per-pupil basis, particularly when compared to existing per-pupil spending, but they may still pose a barrier for Title I schools with tight budgets. A full discussion of SFA cost issues can be found in MDRC, "The Success for All: Model of School Reform: Final Report from the Investing in Innovation (i3) Evaluation," 2015, pp. 97-115. \url{https://www.mdrc.org/publication/scaling-success-all-model-school-reform}.} A reliance on fee-for-service payment structures has been a barrier to scaling SFA and probably for many other providers of evidence-based interventions, as well.\footnote{A discussion of such sustainability and scaling issues can be found in SIRC, "Investing in Innovation (i3): Strong Start on Evaluation and Scale, But Greater Focus Needed on Innovation," January 19, 2017, pp. 42-49. Available at: \url{http://www.socialinnovationcenter.org/?p=2482}.} Once a school has shown interest, but before an agreement is finalized, SFA takes additional steps to ensure buy-in from key personnel at the district, principal, and teacher levels. Separate research has demonstrated the importance of district support to the success of school improvement programs in general.\footnote{Patrick Lester, "Study Suggests Central Role of Leadership in Evidence-based Change," Social Innovation Research Center, July 25, 2017. Available at: \url{http://www.socialinnovationcenter.org/?p=2729}.} Principals are also frequently cited an important drivers of school-based reform, second only to teachers in importance.\footnote{RAND, "School Leadership Interventions Under the Every Student Succeeds Act: Evidence Review," December 2017. Available at \url{https://www.rand.org/pubs/research_reports/RR1550-3.html}; \url{https://www.mdrc.org/publication/scaling-success-all-model-school-reform}.} A study of SFA's work confirmed this finding, showing that its implementation quality was substantially associated with principal support.\footnote{MDRC, "The Success for All: Model of School Reform: Final Report from the Investing in Innovation (i3) Evaluation," 2015, p. 31. \url{https://www.mdrc.org/publication/scaling-success-all-model-school-reform}.} Finally, SFA also helps ensure teacher buy-in by requiring a vote of the staff at all participating schools, with at least 80 percent support required before proceeding with a roll out.\footnote{SFA believes that this vote, which demonstrates teacher and staff buy-in, has helped ensure its successful implementation and
SFA has grown significantly since it began in Baltimore in 1987. In its first decade, it grew by 5-50 schools per year. Following the creation of the federal Comprehensive School Reform (CSR) program in 1998, the number of participating schools grew dramatically, peaking at over 1,500 schools by the mid-2000s. When the CSR program ended in 2005, this figure briefly dropped, but it grew again after the organization received a $50 million Investing in Innovation (i3) grant in 2010. Today, SFA serves over 1,000 schools in 48 states.

Implementation

Replicating an evidence-based program with fidelity can be a demanding task under any circumstances. Such programs commonly come with detailed manuals describing start-up activities and ongoing operations. Requirements often include staff training, materials, monitoring protocols, and related technologies. SFA is no exception. Its core components include curricular materials, training for school leaders and staff, and the hiring of on-site school facilitators to oversee implementation. Such requirements can be a challenge under any circumstances, but they are particularly so in persistently low-performing schools, which commonly experience demanding teaching environments, budget shortfalls, and high staff turnover.

"Most schools can't do this on their own. If they can, they already have," said Nancy Madden, SFA's cofounder and CEO. "It requires strong, stable leadership and the ongoing support of a well-structured intermediary." Continuous improvement is also a central feature of the model. SFA's participating schools usually improve over time. SFA also includes a formal research-backed improvement component. The overall model has steadily evolved over the years, with improvements such as the adoption of new classroom technologies and professional development strategies.

Strengths and Limitations

SFA illustrates both the strengths and limits of provider-based scaling of evidence-based programs. Strengths include the central role of the model developer as a driver of both implementation quality and scale. Providers are well-positioned to market, launch, and oversee the implementation of their models, thereby ensuring they are replicated with fidelity (a common challenge in persistently low-performing schools). They can also take advantage of network-based economies of scale, including investments in research and dissemination of new best practices.

However, there are also limits to the strategy. Use of these models depends primarily on provider marketing and word of mouth rather than consultation with third party ratings like those of the What Works Clearinghouse. The reliance on voluntary adoption also limits the strategy's reach to schools that are both willing and able to pay to work with an outside vendor.

---

217 See: https://www2.ed.gov/programs/compreform/2parger.html
220 Interview, February 2, 2018.
**Recommendations**

The history of turnaround efforts in low-performing schools is one marked by failure overall, but with pockets of success. Most of these previous efforts were insufficiently rooted in evidence, poorly implemented, or both. However, the recent growth of evidence-based whole school reform models, coupled with successful efforts like those in San Francisco, Massachusetts, and by Success for All, suggest that well-designed and well-implemented strategies can succeed.

Fulfilling this potential could be made easier, however, if policymakers were to consider the following supportive changes:

- **Identify Evidence-based Programs and Practices**: Accurately identifying programs and practices that are backed by rigorous evidence is a demanding task that requires time and expertise that most districts and schools probably do not possess in abundance.\(^{225}\)

  The U.S. Department of Education has provided guidance on ESSA's evidence definitions for formula-funded programs, like Title I school improvement funds.\(^{226}\) However, states will probably need to provide further clarity for this guidance to be useful to local school districts and schools. At least 15 states have indicated that they will develop lists or menus of evidence-based interventions.\(^{227}\) More states should consider providing such guidance.

  As they proceed, however, they should review existing clearinghouse ratings and consult with unbiased national experts to ensure that their lists are useful, comprehensive, and appropriate to the range of needs identified in school needs assessments.\(^{228}\) Such lists should emphasize interventions that have demonstrated effectiveness in more than one study, across multiple sites, and with relevant populations.\(^{229}\) Such lists should also be flexible and permit school districts to choose strategies not on the list if they meet specified evidence standards.

- **Require the Adoption of New or Stronger Evidence-based Interventions that Exceed ESSA's Minimum Requirements**: ESSA's evidence provisions require schools that are identified for comprehensive school improvement to have plans that include at least one intervention that is evidence-based. However, this requirement does not require schools to do anything that is substantially different. It allows schools that are unwilling to change to point to minimal evidence justifying their existing work, with little or no alternation to the status quo.

  States or school districts should strengthen ESSA's minimum requirements by directing plans for these schools to include: (1) at least one new evidence-based intervention; (2) at least one intervention, new or current, that meets ESSA's highest ("strong") evidence standard; and/or (3) a proposal to test the effectiveness of at least one new and innovative practice, possibly as part of a research-practice partnership.

- **Provide High-quality, Evidence-focused Technical Assistance**: Selecting an evidence-based program or practice is not sufficient to ensure its effectiveness. Such programs must be

---


\(^{229}\) These criteria are relevant to generalizability, sometimes referred to as external validity. In general, an intervention has greater generalizability if it is has replicated in multiple settings and multiple studies, preferably with the population of interest. See: [https://www.socialresearchmethods.net/kb/external.php](https://www.socialresearchmethods.net/kb/external.php). See also: Steve Fleischman, Caitlin Scott, and Scott Sargrad, "Better Evidence, Better Choices, Better Schools," August 2016, pp. 6-. Available at: [https://cdn.americanprogress.org/wp-content/uploads/2016/08/30141500/EvidenceESSA-report.pdf](https://cdn.americanprogress.org/wp-content/uploads/2016/08/30141500/EvidenceESSA-report.pdf)
implemented well and with fidelity to achieve their intended outcomes. Low-performing schools will need substantial technical assistance to achieve these results, either from the state, the federal REL program or Comprehensive Centers, or providers. While such assistance will likely be provided by a variety of sources, quality will matter. Massachusetts provides an example of the targeted use of evidence-focused assistance, including its use of field guides, practice videos, direct technical assistance, and grants.

- **Encourage the Use of Providers or Other Intermediaries Experienced with Evidence-based Programs:** In many cases, state-provided technical assistance may not be sufficient to ensure effective implementation. Model developers and other external intermediaries are often critical to ensuring model fidelity in low-capacity, low-performing schools that frequently face budget limitations, challenging teaching environments, and high staff turnover.

Providers usually have deep experience with their models, including fidelity and adaptation issues, and are typically well equipped to provide the training, materials, technology, and monitoring protocols necessary for effective implementation. Such providers also commonly maintain networks of schools implementing the same model who can consult with one another through communities of practice.

The Success for All example provides insights on the work of one whole school reform provider with evidence of success. San Francisco worked with numerous outside providers as part of its district-driven work. Massachusetts identified “priority partners” for its turnaround work, including experienced individuals and organizations to oversee state takeovers of schools in situations where turnaround efforts have failed.

In addition to identifying lists of evidence-based interventions, as described above, more states and school districts should follow the lead of Massachusetts by vetting and approving providers, consultants, or other intermediaries based on their track records with evidence-based change. States and districts should also ensure that schools have the necessary authority and funding to work with these providers.

- **Integrate Evidence into State Accountability Systems:** The Massachusetts example demonstrates the value of tying evidence to existing accountability systems. Massachusetts schools that have been identified as turnarounds must select from a state-devised menu of strategies and evidence-based practices. Those that do not improve are subject to state takeover by designated organizations with a successful turnaround track record. Such accountability provisions may provide greater leverage for evidence-based change.

In their ESSA plans, at least 16 states described plans for more aggressively intervening in persistently low-performing schools using strategies that leveraged needs assessments, continuous improvement strategies, and/or evidence-based interventions. More states should consider integrating evidence into their accountability systems.

- **Incorporate Evidence More Thoroughly into State Grants:** Evidence has been a substantial component of federal competitive grants for several years. In their ESSA plans, at least 14 states indicated that they will also tie school improvement funds to the use of such evidence. More states should incorporate evidence into their grants to districts and schools, either as a grant condition or as a component of a competitive grant.

---


After decades of failure, ESSA's evidence provisions provide an opportunity to bring evidence-based change to the nation's lowest-performing schools. The success of such efforts is not assured, however. There will be challenges even for those schools that are committed to reform.

To succeed, ESSA's framework must be viewed as a floor, not a ceiling. The opportunity offered by ESSA will become a reality only if federal, state, local, and provider efforts are all fully utilized and aligned.

--- o ---

**About the Social Innovation Research Center:** The Social Innovation Research Center (SIRC) is a nonpartisan nonprofit research organization focused on social innovation and performance management for nonprofits and public agencies. More information about SIRC is available on the organization's web site at [http://www.socialinnovationcenter.org](http://www.socialinnovationcenter.org).

This paper was developed with the generous financial support of the **Laura and John Arnold Foundation**. The opinions expressed in this paper are the author's and do not necessarily represent the view of the foundation.

---

**SIRC Series on Evidence in Education**

**Building and Using Evidence in Charter Schools**
*How Charter Schools Could Become Innovation Laboratories for K-12 Education*
March 26, 2018

**Investing in Innovation (i3)**
*Strong Start on Evaluation and Scale, But Greater Focus Needed on Innovation*
January 19, 2017

**Performance Partnership Pilots (P3)**
*Waiver Authority Should Be Extended, Evidence and Evaluation Requirements Strengthened*
June 6, 2016
Appendix A: ESSA’s Definition of Evidence-Based

ESSA’s definition of “evidence-based,” as used throughout the law, is an “activity, strategy, or intervention” that:

(i) demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—

   (I) **strong** evidence from at least 1 well-designed and well-implemented experimental study;

   (II) **moderate** evidence from at least 1 well-designed and well-implemented quasi-experimental study; or

   (III) **promising** evidence from at least 1 well-designed and well-implemented correlational study with statistical controls for selection bias; or

(ii) demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(II) includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

Appendix B: Programs Affected by ESSA’s Evidence Provisions

Sections of ESSA that are affected by its evidence definition include the following:

**Title I – Programs for the Disadvantaged**
- School Improvement (Secs. 1003, 1003A, 1111(d), 1114, 1115)
- Parent and Family Engagement (Sec. 1116)
- Prevention for Children/Youth Neglected Delinquent & At-Risk (Sec. 1414)

**Title II – Teachers and Principals**
- Formula Grants (Secs. 2002, 2101, 2103)
- Teacher and School Leader Incentive Fund Grants (Sec. 2212)
- Literacy Education for All, Results for the Nation (LEARN) (Secs. 2221-2225)
- American History and Civics Education (Sec. 2233)
- Supporting Effective Educator Development (SEED) (Sec. 2242)
- School Leader Recruitment and Support (Sec. 2243)

**Title IV – 21st Century Schools**
- Student Support and Academic Enrichment Grants (Secs. 4104, 4108)
- 21st Century Community Learning Centers (Secs. 4204, 4205)
- Magnet Schools Assistance (Sec. 4406)
- Family Engagement in Education Program (Sec. 4503)
- Education Innovation and Research (Sec. 4503)
- Promise Neighborhoods (Sec. 4624)
- Full Service Community Schools (Sec. 4625)
- Academic Enrichment (Sec. 4644)

**Title VI – Native American and Hawaiian Education**
- Improvement of Educational Opportunities for Indian Children and Youth (Sec. 6121)

**Notes**
- * Requires or incentivizes the top three tiers of evidence (strong, moderate, promising).
- ^ Competitive grant.