



## ESSA Guidance

**Evidence-based Strategies, Practices,  
Programs, and Interventions for  
School Improvement**



## Evidence Based Practices, Strategies, and “Interventions”

Along with the flexibility of ESSA comes the responsibility for LEAs and SEAs to ensure that evidence-based strategies, practices, programs and interventions are selected and implemented so that students attending schools in need of Comprehensive or Targeted Support and Improvement have the best opportunity to improve achievement.

### School Improvement

Schools in need of Comprehensive Support and Improvement will develop Integrated Action Plans, based on needs identified in the Comprehensive Needs Assessment and a thorough root cause analysis which reflect these evidence-based interventions.

ESSA requires all school improvement strategies, practices, programs, and interventions funded through Title I 1003(a) meet specific evidence requirements and demonstrate a statistically significant effect on improving meaningful student outcomes. The Arizona Department of Education will not fund any strategies, practices, programs, and interventions that do not meet the rigorous ESSA evidence requirements.

### ESSER 20% set aside

The Every Student Succeeds Act (ESSA) states that evidence-based “means an activity, strategy, or intervention that demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes”. Evidence-based interventions are “practices or programs that have **evidence** to show that they are effective at producing results and improving outcomes when implemented”.

Therefore, an organization can offer evidence-based practices or programs but are not, themselves, evidence-based organizations in terms of the ESSA evidence tiers. As an example, a YMCA can offer after school math instruction using *Galaxy Math*. *Galaxy Math* is evidence-based so that specific YMCA program is evidence-based. The Boys and Girls Club may offer *Competent Kids*, *Caring Communities* for SEL support. That SEL program is evidence-based, so that specific Boys and Girls Club program is evidence based. Please note that for ESSER, including the 20% set aside, the US Education Department allows funds to support students’ social, emotional, mental health, and academic needs, to include implementation or expansion of arts programs, such as music programs, including purchasing instruments; expansion of sports programming so more students can participate; or initiation of clubs, such as a robotic or STEM club.

The American Rescue Plan (Section 2001(e)(1)) states that LEAs **shall reserve not less than 20 percent** of ESSER III fund received to address learning loss through the

implementation of **evidence-based interventions**, such as **summer learning or summer enrichment, extended day, comprehensive afterschool programs, or extended school year programs**, and ensure that such interventions respond to students' **academic, social, and emotional needs** and **address** the disproportionate impact of the coronavirus on the **student subgroups\***

**\*Student Subgroups/Populations:** *Each major racial and ethnic group, economically disadvantaged students, children with disabilities, English learners, gender*

## ESSA Evidence Tiers

ESSA (Section 8002) outlines four tiers of evidence. The table below includes ESSA's definition for each of the four tiers, along with a practical interpretation of each tier.

### UNDERSTANDING THE ESSA TIERS OF EVIDENCE

	 <b>TIER 1</b> <b>Strong Evidence</b>	 <b>TIER 2</b> <b>Moderate Evidence</b>	 <b>TIER 3</b> <b>Promising Evidence</b>	 <b>TIER 4</b> <b>Demonstrates a Rationale</b>
 <b>Study Design</b>	Well-designed and implemented experimental study, meets WWC standards without reservations	Well-designed and implemented quasi-experimental study, meets WWC standards with reservations	Well-designed and implemented correlational study, statistically controls for selection bias*	Well-defined logic model based on rigorous research
 <b>Results of the Study</b>	Statistically significant positive effect on a relevant outcome	Statistically significant positive effect on a relevant outcome	Statistically significant positive effect on a relevant outcome	An effort to study the effects of the intervention is planned or currently under way
 <b>Findings From Related Studies</b>	No strong negative findings from experimental or quasi-experimental studies	No strong negative findings from experimental or quasi-experimental studies	No strong negative findings from experimental or quasi-experimental studies	N/A
 <b>Sample Size &amp; Setting</b>	At least 350 participants, conducted in more than one district or school	At least 350 participants, conducted in more than one district or school	N/A	N/A
 <b>Match</b>	Similar population <i>and</i> setting to your setting	Similar population or setting to your setting	N/A	N/A

a. Findings from experimental and quasi-experimental studies that either (a) meet the first three criteria for Tiers 1 and 2 but not the sample size, setting, or match requirements, or (b) do not meet WWC standards but statistically control for selection bias between the treatment and comparison groups are also eligible to meet Tier 3 Promising Evidence.

Tier	ESSA definition	What does it mean?
Tier 1 <i>Strong</i>	Strong evidence from at least one well-designed and well- implemented experimental study.	<p>Experimental studies have demonstrated that the intervention improves a relevant student outcome (e.g., reading scores; attendance rates).</p> <p>Experimental studies (e.g., Random Control Trials) are those in which students are randomly assigned to treatment or control groups, allowing researchers to speak with confidence about the likelihood that an intervention <i>causes</i> an outcome.</p> <p>Well-designed and well implemented experimental studies meet the What Works Clearinghouse (WWC) evidence standards <i>without</i> reservations.</p> <p>The research studies use large, multi- site samples.</p>
		<p>No other experimental or quasi- experimental research shows that the intervention negatively affects the outcome.</p> <p>Researchers have found that the intervention improves outcomes for the specific student subgroups that the district or school intends to support with the intervention.</p>
Tier 2 <i>Moderate</i>	Moderate evidence from at least one well-designed and well- implemented quasi- experimental study.	<p>Quasi-experimental studies have found that the intervention improves a relevant student outcome (e.g., reading scores, attendance rates). Quasi-experimental studies (e.g., Regression Discontinuity Design) are those in which students have not been randomly assigned to treatment or control groups, but researchers are using statistical matching methods that allow them to speak with confidence about the likelihood that an intervention <i>causes</i> an outcome.</p> <p>Well-designed and well-implemented quasi- experimental studies meet the What Works Clearinghouse (WWC) evidence standards <i>with</i> reservations.</p> <p>The research studies use large, multi- site samples.</p> <p>No other experimental or quasi- experimental research shows that the intervention negatively affects the outcome.</p> <p>Researchers have found that the intervention improves outcomes for the specific student subgroups that the district or school intends to support with the intervention.</p>

<p>Tier 3 <i>Promising</i></p>	<p>Promising evidence from at least one well-designed and well-implemented correlational study.</p>	<p>Correlational studies (e.g., studies that can show a <i>relationship</i> between the intervention and outcome but cannot show <i>causation</i>) have found that the intervention likely improves a relevant student outcome (e.g., reading scores, attendance rates).</p> <p>The studies do not have to be based on large, multi-site samples.</p> <p>No other experimental or quasi- experimental research shows that the intervention negatively affects the outcome.</p> <p>An intervention that would otherwise be considered Tier 1 or Tier 2, except that it does not meet the sample size requirements, is considered Tier 3.</p>
<p>Tier 4 Demonstrates a rationale</p>	<p>Well defined logic module based on research</p> <p>An effort to study the effects is currently underway or planned</p> <p>Relevant research that suggests improving outcomes is likely</p>	

## Resources for Evidence-Based Strategies

Searchable data base of evidence-based programs, practices and interventions on SSI website

[Evidence-Based Practices, Strategies, Programs and Intervention Articles and Resources | Arizona Department of Education \(azed.gov\)](#)

### Search Evidence-based Resources Database

The Every Student Succeeds Act (ESSA) states that evidence-based “means an activity, strategy, or intervention that demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on

Strong evidence from at least one well-designed and well-implemented experimental study;

Moderate evidence from at least one well-designed and well-implemented quasi experimental study;

promising evidence from at least one well-designed and well-implemented correlational study with statistical controls for selection bias; or 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.

Integrated Action Plans are required to be evidence-based and may use any level of evidence indicated above. Funding for the 7% Title I set aside for school improvement must be used for interventions meeting only the top three tiers of evidence (strong, moderate, promising).

**Evidence for ESSA** Johns Hopkins University/Center for Data-Driven Reform in Education  
<http://www.evidenceforessa.org/>

This website provides information on programs and practices that meet each of the top three ESSA levels in a given subject and grade level (e.g., secondary math, elementary reading).

### Learning Policy Institute

<https://learningpolicyinstitute.org/product/evidence-based-interventions>

Achieving an equitable school system that leads to meaningful, relevant, and engaging learning opportunities for all children will require that states, districts, and schools undertake the different tasks—such as curriculum design, access to materials, and educator development—that will enable students to develop much richer learning supported by quality instruction. This resource examines the options available to states to redefine their accountability systems as they begin to implement the Every Student Succeeds Act (ESSA). It analyzes the research base and identifies the conditions under which they have shown to be effective. The four program areas identified in this resource are: high-quality professional development, class-size reduction, community schools and wraparound services, and High School redesign.

### Promising Practices Network on Children, Families and Communities

[http://www.promisingpractices.net/resources\\_highschoolgrad.asp](http://www.promisingpractices.net/resources_highschoolgrad.asp)

This website began as a partnership between four state-level organizations to improve the well-being of children and families. The Promising Practices Network (PPN) funding has concluded, so the website has been archived and materials have not been updated since 2014.

The PPN site features summaries of evidence-based programs and practices that are proven to improve outcomes for children. All programs have been reviewed for quality and to ensure that they have evidence of positive effects.

Programs are assigned to one of three category levels: Proven, Promising, or Other



Reviewed Programs. The Programs that Work section can be browsed in several ways: by outcome area by indicator, by topic, by evidence level, alphabetically. PPN relied on publicly available information for reviewing a program's effectiveness and was interested in programs as they were designed and evaluated. Programs were assigned a "Proven" or "Promising" rating, depending on whether they met the evidence criteria. The "Other Reviewed Programs" are ones which did not undergo a full review by PPN, but evidence of their effectiveness has been reviewed by one or more credible organizations that apply similar evidence criteria.

Evidence Criteria

Types of Outcomes Affected Substantial Effect Size Statistical

Significance Comparison Groups

Sample Size

Availability of Program Evaluation Documentation

**Best Evidence Encyclopedia**, developed by the Center for Data Driven Reform in Education at Johns Hopkins University (not categorized in ESSA evidence tiers)

<http://www.bestevidence.org/>

The Best Evidence Encyclopedia (BEE) is a free web site created by the Johns Hopkins University School of Education's Center for Data-Driven Reform in Education (CDDRE) under funding from the Institute of Education Sciences, U.S. Department of Education. It is intended to give educators and researchers fair and useful information about the strength of the evidence supporting a variety of programs available for students in grades K-12. The BEE provides summaries of scientific reviews produced by many authors and organizations, as well as links to the full texts of each review. The summaries are written by CDDRE staff members and sent to review authors for confirmation. Program reviews include; Mathematics, Reading, Science Early Childhood and Comprehensive School Reform.

***National Center on Intensive Intervention at American Institutes for Research***

<http://www.intensiveintervention.org/>

This website provides information on data-based individualization (DBI), a research-based process for individualizing and intensifying interventions through the systematic use of assessment data, validated interventions, and research-based adaptation strategies.

**Results First Clearinghouse Database**, developed by the Pew Charitable Trusts (not categorized in ESSA evidence tiers; evaluates interventions as rated by eight national databases) <http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2014/09/results-first-clearinghouse-database>

This website includes a downloadable excel spreadsheet of compiled interventions by: category, policy area, intervention type and rating. The intervention rating included is based on a compilation of data from eight different clearinghouses. A direct link to the intervention website is also included in the downloadable spreadsheet. This is a great starting place to find interventions, as well as a quick check to see if interventions being used are considered effective.

**Roadmap to Evidence Based Reform for Low Graduation Rate High Schools**, developed by the Every Student Graduates Center at Johns Hopkins University

<http://new.every1graduates.org/everyone-graduates-center-roadmap-to-evidence-based-reform-for-low-graduation-rate-high-schools/>

The Everyone Graduates Center provides a roadmap to evidence-based reform for low graduation high schools. Resources include full reports, presentations, and teacher resources-all focused on addressing the dropout crisis.

**RAND report on school leadership interventions under ESSA** (categorized in ESSA evidence tiers) <http://www.wallacefoundation.org/knowledge-center/Documents/School->

[Leadership-Interventions-ESSA-Evidence-Review.pdf](https://www.rand.org/pubs/research_reports/RR2133.html)  
[https://www.rand.org/pubs/research\\_reports/RR2133.html](https://www.rand.org/pubs/research_reports/RR2133.html)

The Every Student Succeeds Act (ESSA) presents a renewed focus on school leadership and acknowledges the importance of school principals to school improvement and effective instruction. ESSA repeatedly calls for the use of evidence-based activities, strategies, and interventions and establishes a framework with tiers of evidence when considering their proven impact on student success. This represents a shift in thinking regarding the justification of funds tied to Title funding, particularly as it relates to supporting school leadership. This report seeks to resolve some of the ambiguity that may still exist as states, districts, and schools seek to determine if activities qualify as evidence-based and therefore allowable.

**Using Evidence to Create Next Generation High Schools**, developed by the U.S. Department of Education (not categorized in ESSA evidence tiers)

<https://www2.ed.gov/rschstat/eval/high-school/using-evidence-create-next-gen-highschools.pdf>

Next Generation High Schools are schools that redesign the high school experience to make it more engaging and worthwhile for high school students. In order to create such Next Generation High Schools, schools, districts, and States should utilize evidence-based strategies to transform high schools in ways that engage students and help prepare them for college and career success. Evidence-based strategies encompass a variety of approaches. This document highlights six general evidence-based strategies to improve America's high schools for the next generation. Though many of the effective strategies may share common features, each has been identified by the research literature as a stand-alone. Intervention or model for improving students' educational outcomes. Reviewed strategies for enhancing students' high school and college outcomes include: 1) participation in rigorous curriculum; 2) small learning communities/small schools of choice; 3) career academies; 4) dual enrollment; 5) early college high schools; and 6) college and career counseling.

**Best Practices Clearinghouse** <https://bestpracticesclearinghouse.ed.gov>

**National Center on Intensive Intervention** <https://intensiveintervention.org/>

**Campbell Collaboration** [Systematic reviews, evidence synthesis - The Campbell Collaboration](#)

The Campbell Collaboration promotes positive social and economic change through the production and use of systematic reviews and other evidence synthesis for evidence-based policy and practice. Searchable data base for education, disabilities, social issues.

**ERIC** [ERIC - Education Resources Information Center](#)

ERIC is an online library of education research and information, sponsored by the Institute of Education Sciences (IES) of the U.S. Department of Education

**IES>WWC What Works Clearinghouse** [WWC | Find What Works! \(ed.gov\)](#)

The What Works Clearinghouse (WWC) reviews the existing research on different programs, products, practices, and policies in education. Our goal is to provide educators with the information they need to make evidence-based decisions.. WWC includes topics such as: literacy, mathematics, science, behavior, children and youth with disabilities, the path to graduation and early childhood. WWC uses a systematic review process to evaluate research studies to determine the quality of the research and the strength of the evidence produced by research. This [infographic](#) illustrates the WWC rating process.

**More extensive guidance can be found on the Support and Innovation Webpage** <http://www.azed.gov/improvement/> under Evidence-Based Resources