Using WWC Resources to Identify Interventions That Meet ESSA Tiers of Evidence

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Learning Goals for the Webinar

During this webinar, you will learn:

- Definitions and use of Every Student Succeeds Act (ESSA) tiers of evidence.
- How the What Works Clearinghouse (WWC) standards align with the definitions for ESSA tiers of evidence.
- How to use the WWC's Reviews of Individual Studies and Data from Individual Studies to make an ESSA evidence tier determination.



ESSA Tiers of Evidence

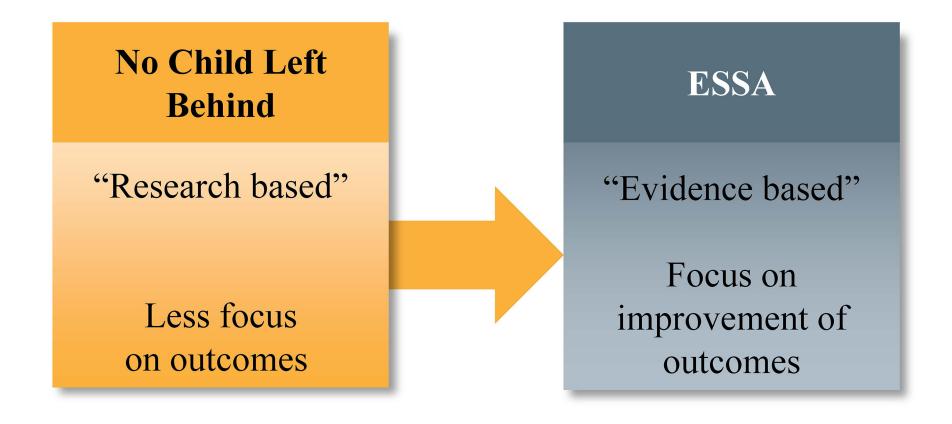


What Is ESSA?

- ESSA is the Every Student Succeeds Act, signed December 10, 2015.
- ESSA reauthorized the Elementary and Secondary Education Act—the United States education law. The previous version (No Child Left Behind) was enacted in 2002.
- Some of ESSA's provisions include:
 - A focus on equity.
 - An expectation that all students be taught to high academic standards.
 - More flexibility for states to set goals for student achievement and accountability.
 - Elimination of unnecessary testing.
 - Accountability beyond math and reading test scores, including a measure of school quality.
 - A greater focus on evidence-based practices.



From No Child Left Behind to ESSA: Focus on Evidence



Evidence Under ESSA: Four Tiers

1: Strong

2: Moderate

3: Promising

4: Demonstrates a Rationale



ESSA Evidence Criteria	Strong Evidence (Tier 1)	Moderate Evidence (Tier 2)	Promising Evidence (Tier 3)	Demonstrates a Rationale (Tier 4)
Study design				
Positive effect on the outcome				
No overriding negative effects				
Large, multisite sample				
Context				



ESSA Evidence Criteria Domains	Strong Evidence (Tier 1)	Moderate Evidence (Tier 2)	Promising Evidence (Tier 3)	Demonstrates a Rationale (Tier 4)
Study design	Well-designed and well-implemented experimental	Aligns with the WW Standards Without	_	
Positive effect on the outcome				
No overriding negative effects				
Large, multisite sample				
Context	Population and setting			



ESSA Evidence Criteria Domains	Strong Evidence (Tier 1)	Moderate Evidence (Tier 2)	Promising Evidence (Tier 3)	Demonstrates a Rationale (Tier 4)
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Study design	Well-designed and well-implemented experimental	Aligns with the WW Standards Withou		
Positive effect on the outcome		Demonstrates a statis favorable of		
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Large, multisite sample		Sample is both large a than one s	· · · · · · · · · · · · · · · · · · ·	
Context	Population and setting			



ESSA Evidence Criteria Domains	Strong Evidence (Tier 1)	Moderate Evidence (Tier 2)	Promising Evidence (Tier 3)	Demonstrates a Rationale (Tier 4)
Study design	Well-designed and well-implemented experimental	Aligns with the WW Standards Withou		
Positive effect on the outcome		Demonstrates a stati favorable		
No overriding negative effects		No overriding statis unfavorable outcomes		
Large, multisite sample		Sample is both large than one	` `	
Context	Population and setting	Sample aligns with t setting of		



ESSA Evidence Criteria	Strong Evidence (Tier 1)	Moderate Evidence (Tier 2)	Promising Evidence (Tier 3)	Demonstrates a Rationale (Tier 4)
Study design	Well-designed and well-implemented experimental	Well-designed and well-implemented quasi-experimental	Aligns with the WW Standards With	
Positive effect on the outcome				
No overriding negative effects				
Large, multisite sample				
Context	Population and setting	Population or setting		



ESSA Evidence Criteria	Strong Evidence (Tier 1)	Moderate Evidence (Tier 2)	Promising Evidence (Tier 3)	Demonstrates a Rationale (Tier 4)
Study design	Well-designed and well-implemented experimental	Well-designed and well-implemented quasi-experimental	Well-designed and well-implemented correlational design with statistical controls for selection bias	
Positive effect on the outcome				
No overriding negative effects				
Large, multisite sample				
Context	Population and setting	Population or setting		



ESSA Evidence Criteria	Strong Evidence (Tier 1)	Moderate Evidence (Tier 2)	Promising Evidence (Tier 3)*	Demonstrates a Rationale (Tier 4)*
Study design	Well-designed and well-implemented experimental	Well-designed and well-implemented quasi-experimental	Well-designed and well-implemented correlational design with statistical controls for selection bias	Well-defined logic model
Positive effect on the outcome				Related research or evaluation is planned or underway
No overriding negative effects				
Large, multisite sample				
Context	Population and setting	Population or setting		



Uses of ESSA Tiers of Evidence

- Educators may use ESSA tiers of evidence to identify interventions that demonstrate evidence of effectiveness:
 - Inform school improvement plans.
 - Select and implement evidence-based practices.
- States may have lists of "preferred practices," some of which align with ESSA's evidence requirements:
 - Program developers need to generate evidence of their programs' effectiveness to be eligible for these lists.





Uses of ESSA Tiers of Evidence

- Federal grant programs may require evidence of effectiveness for proposed interventions based on ESSA tiers of evidence.
- Education Innovation and Research program:
 - In the past, early-phase grants needed to be supported by evidence that demonstrates a rationale, mid-phase grants by moderate evidence, and expansion grants by strong evidence.

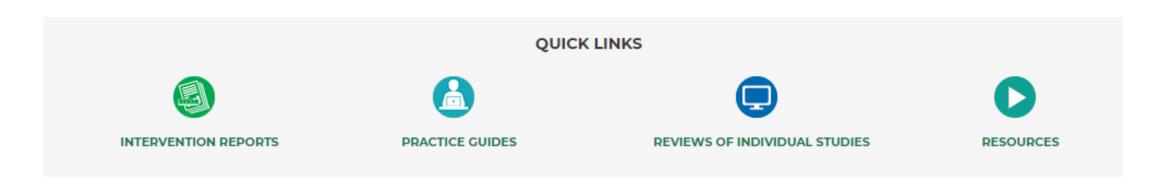


Alignment of the WWC Design Standards With ESSA Tiers of Evidence



Webinar Focus: WWC Reviews of Individual Studies

- The WWC produces three products: reviews of individual studies, practice guides, and intervention reports.
- The webinar's focus is on the WWC reviews of individual studies, because:
 - Individual studies provide the most current information.
 - WWC's tools for ESSA evidence tier filters are currently available only for individual studies.





Steps in WWC Reviews of Individual Studies

- Step 1: Screen for eligibility.
- Step 2: Conduct review if a study is eligible.
- Step 3: Determine a study's rating.



Steps in WWC Reviews of Individual Studies

If a study is rated *Meets WWC Standards With Reservations* or *Meets WWC Standards Without Reservations*:

- Step 4: Evaluate evidence of effectiveness.
- Step 5: Document context.

The WWC's procedure may affect what information is available for ESSA determination.



Study Rating

- An eligible study receives one of three WWC design ratings (ratings that reflect internal validity of the study):
 - Meets WWC Standards Without Reservations
 - Meets WWC Standards With Reservations
 - Does Not Meet WWC Standards
- Studies rated *Meets WWC Standards With Reservations* or *Without Reservations* reviewed under the WWC standards version 2.1 or later receive an ESSA rating.
- A study-level WWC and ESSA rating is <u>based on the highest rated finding</u>.



Study Rating

- Different findings in the same study may have different ESSA evidence tier ratings.
- Example: Early College, Early Success: Early College High School Initiative Impact Study has the highest study rating under the WWC Standards and ESSA evidence criteria.

RANDOMIZED CONTROLLED TRIAL EXAMINING 2,458 STUDENTS, GRADE 9



Reviewed: March 2014

Source: https://ies.ed.gov/ncee/wwc/Study/77771



Study Rating

Different outcomes are rated differently in the same study.

English language arts achievement outcomes—Statistically significant positive effects found 🐧								
Outcome measure ①	Comparison ① Pe	eriod 🚯	Sample 🕖	Intervention mean (1)	on Comparison mean 🛈	Significant?	Improvement 1 index 1	ESSA rating ①
Achievement in English/language arts	Early College High Schools vs. Business as usual	osttest	All students; 2,141 students	0.37	0.23	Yes	-50 0	ESSA TIER

tics Achievement	outcomes—I	ndeterminate ef	fects found 🚯				
Comparison ①	Period ①	Sample ①	Intervention mean 🛈	Comparison mean 🛈		Improvement index	ESSA rating ()
Early College High Schools vs. Business as usual	Posttest	All students; 1,628 students	0.28	0.23	No		
pmental educatio	on outcomes-	–Statistically sig	nificant positi	ve effects four	nd 🚯		
Comparison (Period ①	Sample ①	Intervention mean 🚯	Comparison mean 🛈		Improvement index	ESSA rating 1
Early College High Schools vs. Business	Posttest	All students; 1,002 students	N/A	N/A	Yes	-50 O	ESSA TIER
	Comparison (1) Early College High Schools vs. Business as usual comparison (1) Early College High Schools	Comparison (1) Period (1) Early College High Schools vs. Business as usual Pomental education outcomes- Comparison (1) Period (1) Early College High Schools Posttest	Comparison (1) Period (1) Sample (1) Early College High Schools vs. Business as usual Posttest Comparison (1) Period (1) Sample (1) Early College High Schools vs. Business Posttest All students; 1,628 students Sample (1) All students; 1,002	Comparison (1) Period (1) Sample (1) Intervention mean (1) Early College High Schools vs. Business as usual Posttest 1,628 0.28 students Omegan (1) O.28 students Comparison (1) Period (1) Sample (1) Intervention mean (1) Early College High Schools vs. Business All students; 1,002 N/A	Comparison ① Period ① Sample ① mean ① mean ① Early College High Schools vs. Business as usual Posttest Omean ① Desire ② Desire ③ Desire ④ Desire ⑥ Desire	Comparison (1) Period (1) Sample (1) mean (1) mean (2) significant? Early College High Schools vs. Business as usual Posttest 1,628 students One of the comparison of the c	Comparison (1) Period (1) Sample (1) Mean (1) Mean (1) Significant? (1) index (1) Early College High Schools vs. Business as usual Posttest 7,628 students O.28 O.23 No Tomper t



Evidence of Effectiveness

- WWC only reports evidence of effectiveness for studies rated *Meets WWC Standards With Reservations* or *Without Reservations*.
- WWC rating of effectiveness is independent of design rating.
 - A well designed and implemented study may or may not produce evidence of effectiveness.



Evidence of Effectiveness

• Example: A study received the highest design rating, but the intervention did not produce evidence of effectiveness.

Using social-emotional and character development to improve academic outcomes: A matched-pair, cluster-randomized controlled trial in low-income, urban schools.

Bavarian N., Lewis, K. M., DuBois, D. L., Acock, A., Vuchinich, S., Silverthorn, N., ... Flay, B. R. (2013). Journal of School Health, 83(11), 771–779. Retrieved from: https://eric.ed.gov/?id=EJ1026798

RANDOMIZED CONTROLLED TRIAL EXAMINING 74 SCHOOLS, GRADES 3-8



Source: https://ies.ed.gov/ncee/wwc/Study/81474



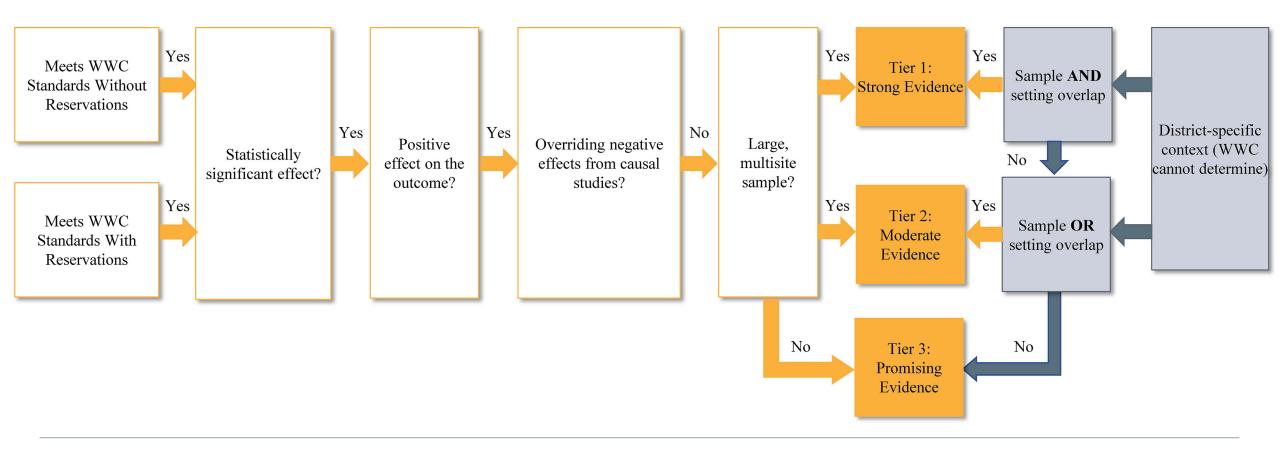
Study Context

- WWC will only document context of studies rated *Meets WWC Standards With Reservations* or *Without Reservations*.
 - Sample characteristics (for example, race/ethnicity, gender, grade level, English learner status)
 - Setting characteristics (for example, class and school type, urbanicity, state)
 - Intervention characteristics (for example, method of delivery, program type)
- To make an ESSA evidence tier determination, a practitioner will need information about sample and setting characteristics.



WWC Ratings and ESSA Tiers of Effectiveness

Studies reviewed under the WWC Standards version 2.1 or a more recent version have an ESSA rating.



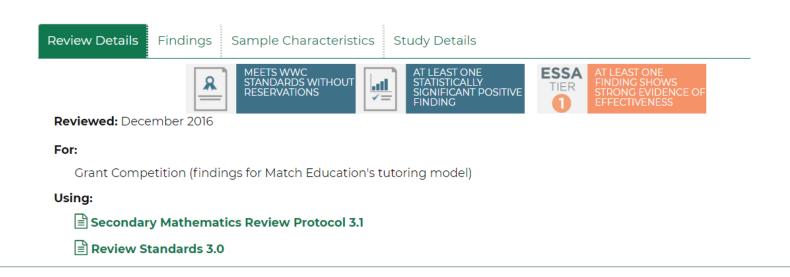


- A small suburban district in the Northwest, with 30% of students eligible for free or reduced- price lunch, wants to provide extra support to students in grades 9 and 10 struggling with high school math. Administrators want to identify an intervention that has demonstrated evidence of improving math achievement in these grades. Based on funding requirements, evidence from the intervention must meet ESSA criteria for Tier 1 or Tier 2. Administrators located a study on the WWC website that examines the effectiveness of a math tutoring program. Results of the study look promising, but the administrators want to make sure that all criteria are met:
 - Intervention is delivered in grades 9 and 10.
 - Intervention is effective.
 - Evidence meets definitions for ESSA Tier 1 or Tier 2.



- Based on the study snapshot below, what should the district administrators conclude?
 - A.The study meets all required criteria (grades 9–10, effective, ESSA Tier 1 or 2).
 - B. The study does not meet all required criteria.
 - C. The information is insufficient for making a decision.

RANDOMIZED CONTROLLED TRIAL EXAMINING 7,979 STUDENTS, GRADES 9-70





- Based on the study snapshot, what should the district administrators conclude?
 - A.The study meets all required criteria (grades 9–10, effective, ESSA Tier 1 or 2).
 - B. The study does not meet all required criteria.
 - C. The information is insufficient for making a decision.
- Correct answer: C

The study snapshot has insufficient information for making a decision. The intervention is at the high school level (grades 9 and 10), and the intervention is effective (at least one statistically significant and positive finding). However, although at least one outcome shows strong evidence of effectiveness eligible for ESSA Tier 1, the administrators need to confirm that the study's sample and setting overlap with the district's.



• Administrators from the same district (a small suburban district in the Northwest with 30% of students eligible for free or reduced-price lunch, 50/50 male/female) located additional information about the study's setting and sample. Based on the additional information below, does the study meet evidence definitions for ESSA Tier 1 or Tier 2?

A. The study meets evidence definitions for ESSA Tier 1.

B. The study meets evidence definitions for ESSA Tier 2.

C. The study does not meet evidence definitions for ESSA Tier 1 or Tier 2.









·emaie: 52% Male: 48%

Grades 9-10





• Administrators from the same district (a small suburban district in the Northwest with 30% of students eligible for free or reduced-price lunch, 50/50 male/female) located additional information about the study's setting and sample. Based on the additional information, what should the district administrators conclude?

A. The study meets evidence definitions for ESSA Tier 1.

B. The study meets evidence definitions for ESSA Tier 2.

C. The study does not meet evidence definitions for ESSA Tier 1 or Tier 2.

Correct answer: B

The study's setting is an urban district in the Midwest, which does not overlap with a small suburban district in the Northwest. The study's sample, however, overlaps with the students that the district wants to help. Students in the study and in the district are in grades 9–10, and we have overlap in characteristics (90% eligible for free or reduced-price lunch in the study and 30% in the district; a similar proportion of male and female students in the study and in the district).



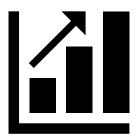
Using WWC Resources to Identify Interventions That Satisfy the ESSA Tiers of Evidence



WWC Tools for ESSA Determination



Reviews of Individual Studies

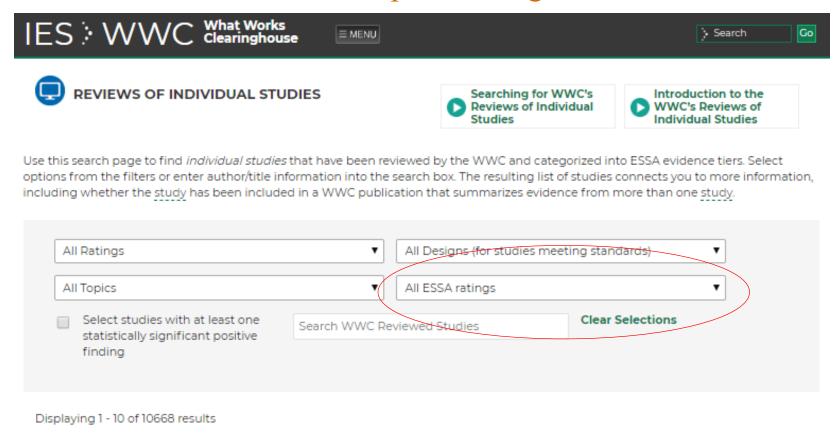


Data From Individual Studies

- WWC examined all studies reviewed under version 2.1 or later to determine alignment with ESSA evidence definitions for Tier 1 or Tier 2.
 - Findings from new studies are automatically reviewed for ESSA alignment.

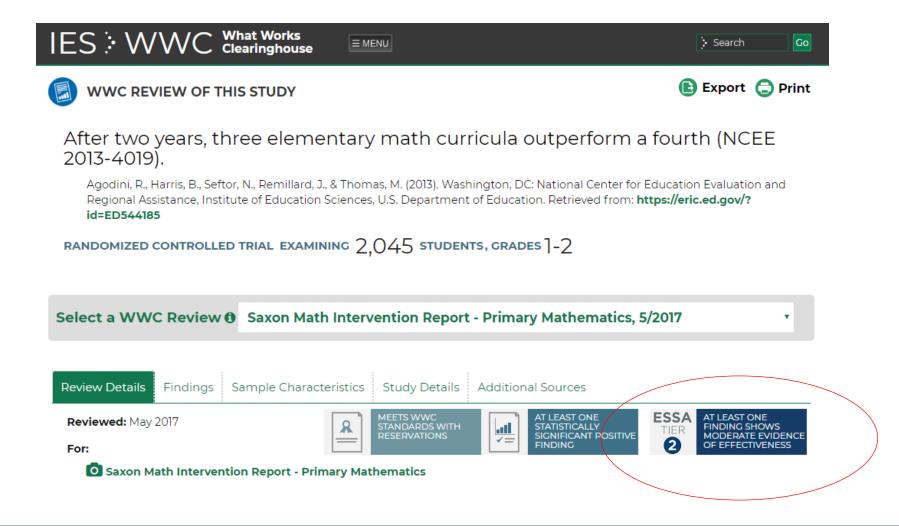
Using the Reviews of Individual Studies Page

Access reviews of individual studies at: https://ies.ed.gov/ncee/wwc/ReviewedStudies





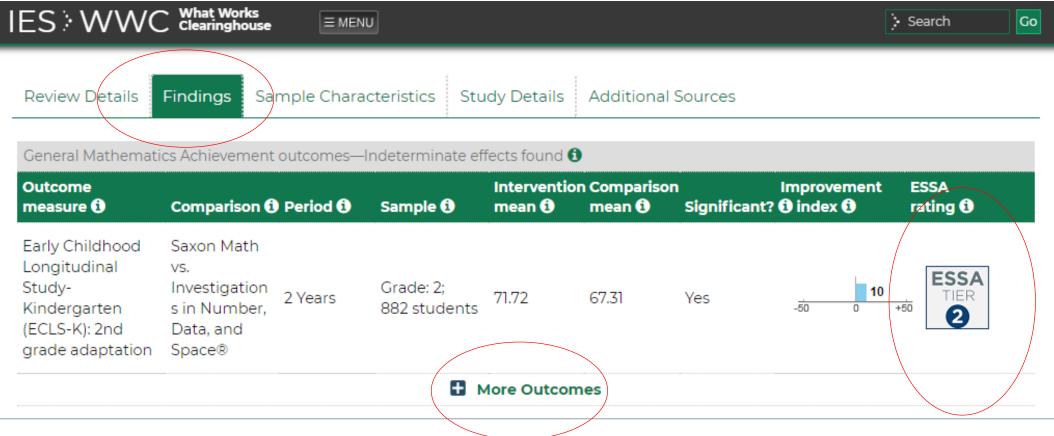
Using the Reviews of Individual Studies Page





Using the Reviews of Individual Studies Page

• Review "Findings" to examine individual outcomes.





Access data from individual studies at: https://ies.ed.gov/ncee/wwc/StudyFindings

Use the filters below for the pre-merged file to download targeted data from intervention reports, studies, and findings. Users can filter by WWC study rating, topics, protocols, interventions, ESSA ratings, standards versions, and outcome domains. Users may also choose to download data from intervention reports, studies and findings in separate files; however, the filters are for use with the merged file.

The merged file contains data from intervention reports, studies that Meet WWC Group Design, Single Case Design, and Regression Discontinuity Design *Standards With and Without Reservations*, as well as individual findings from these studies.

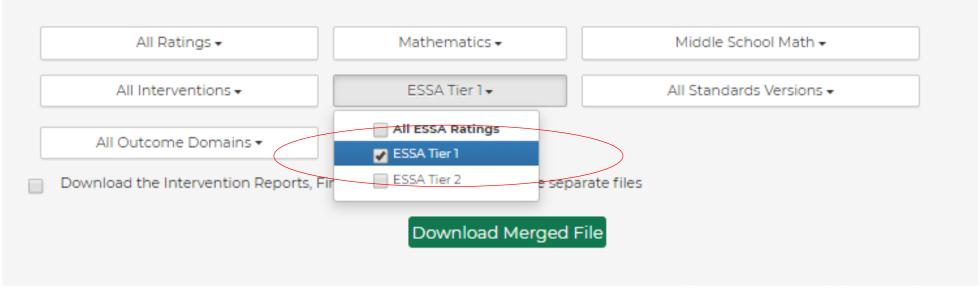
This file does not include studies or finding from studies that *Do No Meet WWC Standards*. Users wishing to download all studies in the WWC database, including those that *Do Not Meet WWC Standards*, should download the separate file. The merged file, as well as the separate file downloads, do not include findings that do not meet WWC standards.

	All Topics ▼	All Protocols ▼
All Interventions ▼	All ESSA Ratings ▼	All Standards Versions ▼
All Outcome Domains ▼		

If you are interested in a separate data extract that includes archived reviews, please visit the **Archived Data From Individual Studies** page. Note that archived reviews may contain information that has been updated in new reports.

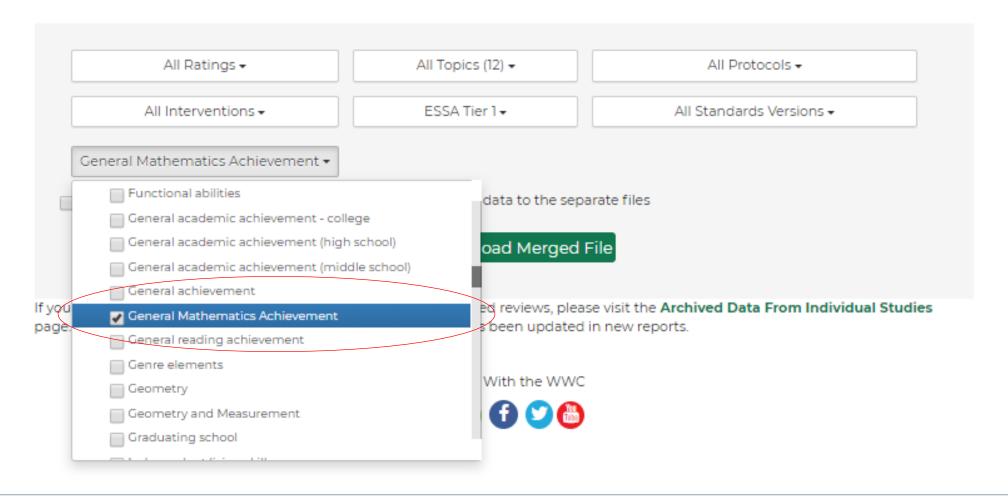


• Example: The director of research at a state education agency is looking for a mathematics interventions that demonstrate Tier 1 evidence in improving general mathematics achievement.

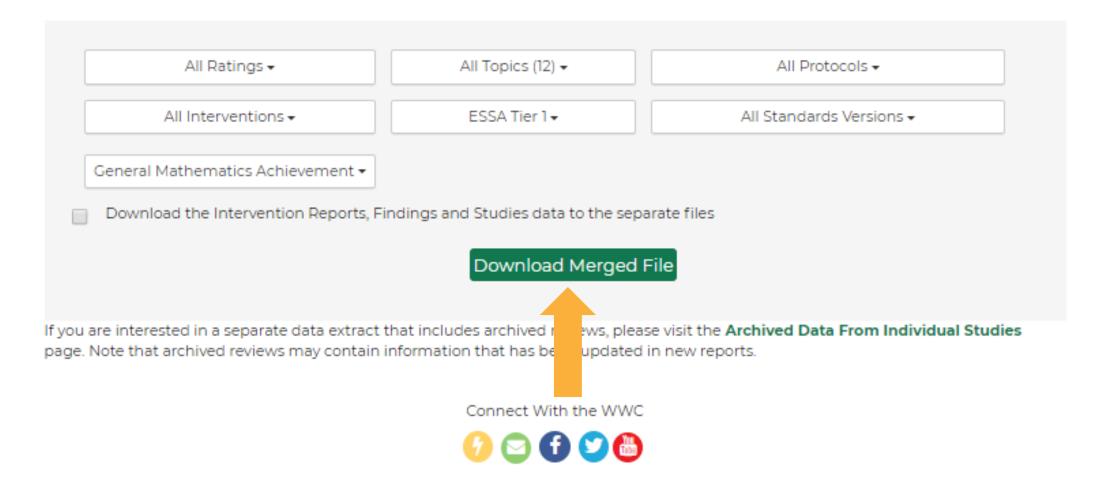


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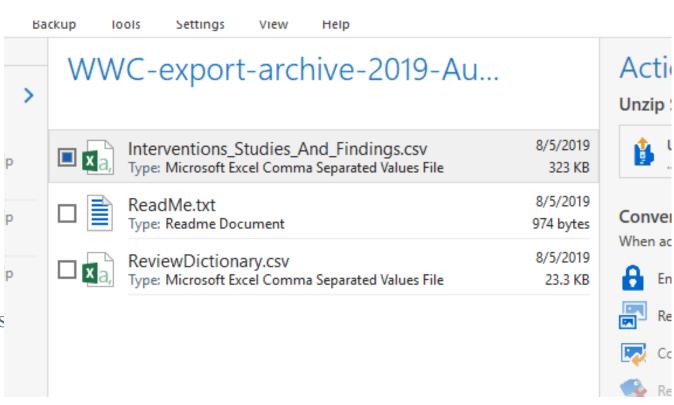






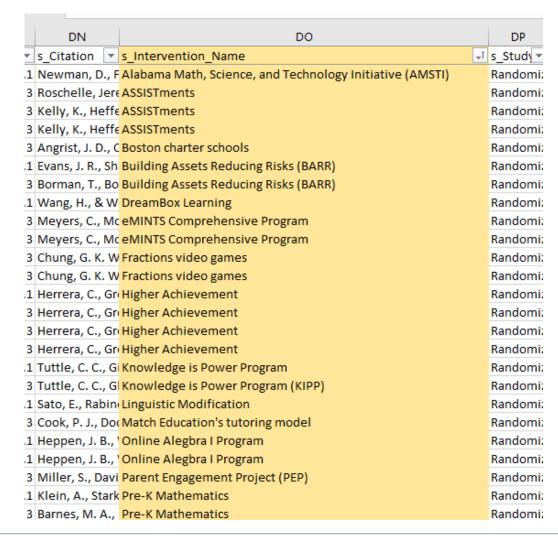
Merged file provides:

- All fields from each of the three individual files.
- Newly available information:
 - Findings-level WWC ratings
 - Multisite indicator
 - Designation for findings that meet ESSA Tiers





- 50 outcomes from 20 interventions that meet criteria for Tier 1 General Mathematics Achievement
- Users can further filter results by:
 - Grade
 - Program type
 - Gender
 - Race
 - Region
 - School type
 - Urbanicity





Summary

- In this webinar, we learned about:
 - Definitions and use of ESSA tiers of evidence.
 - How the WWC standards align with the definitions for ESSA tiers of evidence.
 - How to use the WWC's Reviews of Individual Studies and Data from Individual Studies to make an ESSA evidence tier determination.

Evidence Tier Resources on the WWC Website





Questions?





Have questions? Contact us: https://ies.ed.gov/ncee/wwc/help



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What Works Clearinghouse and REL Midwest



Josh Polanin, Ph.D.

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Resources

- Elementary and Secondary Education Act of 1965 (as amended through P. L. 115-224, enacted July 31, 2018): https://legcounsel.house.gov/Comps/Elementary%20And%20Secondary%20Education%20Act%20Of%201965.pdf
- Institute of Education Sciences. (2020). *What Works Clearinghouse procedures handbook version 4.1*. Retrieved February 6, 2020 from https://ies.ed.gov/ncee/wwc/Docs/referenceresources/WWC-Procedures-Handbook-v4-1-508.pdf
- Institute of Education Sciences. (2020). *What Works Clearinghouse standards handbook version 4.1*. Retrieved February 6, 2020 from https://ies.ed.gov/ncee/wwc/Docs/referenceresources/WWC-Standards-Handbook-v4-1-508.pdf
- U.S. Department of Education. (2016). *Non-regulatory guidance: Using evidence to strengthen educational investments*. Washington, DC. Retrieved February 6, 2020 from https://www2.ed.gov/policy/elsec/leg/essa/guidanceuseseinvestment.pdf
- U.S. Department of Education. (2019). *Every Student Succeeds Act*. Retrieved February 6, 2020 from https://www2.ed.gov/policy/elsec/leg/essa/index.html

