

DECEMBER 7, 2023

MEMORANDUM



JOINT
BUDGET
COMMITTEE

TO Members of the Joint Budget Committee
FROM Mitch Burmeister, JBC Staff (303-866-3147)
DATE December 7, 2023
SUBJECT Evidence-based Decision Making Update

EXECUTIVE SUMMARY

Senate Bill 21-284 set into statute guidelines for;

- How evidence-based decision making (EBDM) should be integrated into the budget process;
- Definitions of how to categorize levels of evidence used to evaluate a program's effectiveness; and
- Roles of the Joint Budget Committee, Joint Budget Committee Staff, and the Office of State Planning and Budgeting.

Since its passage, JBC Staff has been working internally and with OSPB to create a smooth process between the executive and legislative branches that both abides by statute and provides the JBC with relevant, actionable information upon which to make decisions.

This has been an iterative process over the past two budget cycles as JBC Staff has worked to understand how best to take the evidence level designations that OSPB and state agencies provide and analyze those requests independently for their relevance and rigor.

This process has proven difficult. Part of the reason for this is because transitioning to a paradigm of evidence-based analysis is a cultural change within the JBC Staff that will simply take time to become accustomed to. Part of the reason, however, is because of the way the original statute was written. There are certain aspects of Section 2-3-210, C.R.S. that inject ambiguity into JBC Staff's role in analyzing evidence level designations that OSPB and the state agencies submit. Those ambiguities and staff's proposed solution will follow in this memo.

RECOMMENDATION

Staff recommends the JBC sponsor legislation to make changes to Section 2-3-210, C.R.S., Evidence-based Decision Making. The goals of these changes are to:

- Clarify JBC Staff roles;
- Clarify OSPB roles;
- Adjust definitions and designations that have proven ineffective or insufficient, and;
- Add new definitions and designations that will help JBC Staff better categorize evidence levels for the Committee.

QUESTIONS FOR CONSIDERATION

- Did the Department designate this evidence level?
- What are the expected outputs and outcomes if this funding is approved?
- How do you plan to evaluate this program?

FIVE-YEAR VISION

Since the passage of S.B. 21-284, JBC Staff has been working with the Colorado Evaluation & Action Lab (Lab) at the University of Denver to understand what it would mean for evidence-based decision making to be the default mode of creating policy and the budget in Colorado. To that end, the Lab, with input from JBC Staff, created a five-year vision of how evidence-based decision making could be implemented in Colorado to achieve the cultural shift necessary for success. The abridged version of the five-year vision memo follows on the next two pages.



Evidence-Based Decision-Making in Colorado: A 5-Year Vision

Why a 5-year Vision is Needed

Evidence-Based Decision-Making is critical to driving smart state investments, continuous quality improvement, innovation, and outcomes. By making explicit Colorado's shared understanding of evidence-based decision-making and our approach to it, we can align roles and responsibilities, accelerate progress, and build on the good work that has come before.

What is Evidence-Based Decision-Making?

Evidence-Based Decision-Making (EBDM) is the intersection of the best available research evidence, decision-makers' expertise, and community needs and context. EBDM recognizes that research evidence is not the only contributing factor to policy and budget decisions. Other equally important contextual factors include resourcing, cultural values, community voice, and feasibility of implementation.

Evidence-Based Decision-Making is not the same thing as evidence-based practice (EBP). EBDM is a more comprehensive, flexible approach to building and using research evidence across a wide variety of decision-making use cases, from operational to strategic. In contrast, EBP designations are given as a result of a rigorous review of existing literature on a replicable program or intervention. EBPs are a use case within EBDM. EBDM is about the larger culture and structure — it is the waters we swim in to drive sustained change.



What Does a Successful EBDM Culture Look Like?

It is important to articulate how we will know when we have achieved a successful EBDM culture. By defining key features of a successful EBDM culture, we can build capacity for effective implementation, measure progress over time, invest resources in areas that are proving difficult, and provide the support necessary for every partner to meaningfully contribute.

Five Defining Features of an EBDM Culture

- 1 Decision-makers, agency leadership, and staff have a **common understanding** of what EBDM is and how to achieve it.
- 2 Decision-makers, agency leadership, and staff commit to and **consistently participate in** agreed-upon EBDM strategies, including evidence-building, consistent with their role.
- 3 Decision-makers, agency leadership, and staff have the **resources, skills, and time** necessary to acquire the best available evidence, make meaning of it, and apply it to the decision-making context.
- 4 Use of research evidence in decision-making is **systemic and robust** enough to withstand changes in decision-makers, agency leadership, and staff.
- 5 Decision-makers, agency leadership, and staff **engage in an iterative process of using existing research evidence and generating new research evidence**, including ongoing measurement of outcomes and revisiting decisions periodically in light of new evidence.

Why Using the *Best Available Evidence* is Critical to Success

When making decisions, it is critical that the best available evidence be applied. Using the *best available evidence* can help address challenges to successful evidence-based decision-making. For example, cherry picking data to back up an already made decision can introduce bias and limit the potential for data to drive outcomes. Using a best available evidence approach also helps inform priorities for evidence-building. For example, synthesizing the best available evidence can help identify where a practice or policy is at in the [Steps to Building Evidence](#). Once known, more intentional decisions around future evidence use and evaluation can be made.

Defining “Best Available Evidence”

“Best available evidence” refers to the weight of the research evidence from the most rigorous studies available about a practice or policy. “Research evidence” refers to empirical findings generated from the systematic and rigorous application of methods and analyses to help answer a question, hypothesis, or topical investigation. The best available evidence includes both number-based (quantitative) and narrative-based (qualitative) data.

How a Collaborative Approach will help Colorado Achieve an EBDM Culture

Government and non-governmental partners alike have a unique role to play in creating — and sustaining — a successful EBDM culture. By aligning roles and responsibilities, we can better answer the question “what does my piece of the puzzle look like?” and together, drive collective action that benefits the lives of Coloradans.



Learn More! Become Involved!

To learn more about this vision or find out how you and your agency can be part of co-developing an EBDM culture, contact Courtney@coloradolab.org

[Read full memo >](#)

[Visit website to learn more >](#)



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DEFINITIONS

What follows on the next two pages is a list of definitions that the Lab, with input from JBC Staff and other stakeholders, created with the goal of establishing a common understanding of what evidence means and what various terms within the statute mean in this context. This is an important list of definitions because one of the issues that JBC Staff and OSPB have had is mismatched understandings of what certain words or phrases in statute actually mean.

One example of this is the difference between outputs and outcomes. Oftentimes, JBC Staff will see requests that purport to produce outcomes when in reality they are producing outputs. A hypothetical example of this would be funding for more educational opportunities in prisons. More inmates with the ability to access education in prison would be an output – purely the number served – while reduced recidivism rates for inmates who take advantage of educational programs would be an outcome – a measure of improvement for a target population.



Evidence-Based Decision-Making in Colorado: Glossary of Terms (August 2023)

Introduction

This glossary provides definitions that are used in evidence-based decision-making (EBDM). Having shared definitions among governmental and non-governmental stakeholders across the state is a key step forward in helping to operationalize [Colorado's statewide vision of EBDM](#). These definitions are intended for use by all stakeholders in policy development, policy implementation, budget development, strategic planning, in conducting and sharing research/evaluation, and other EBDM activities.

These definitions were developed based on a literature review and input from subject matter experts and practitioners across Colorado, with the aim of supporting alignment with current statutorily-defined, rule-defined, and commonly-used definitions.

This glossary is a living document. If you have feedback on the definitions or would like to request that additional terms be added, please contact courtney@coloradolab.org.

Definitions

Best Available Research Evidence: Refers to the weight of the research evidence from the most rigorous and relevant studies available about a practice or policy, identified using a systematic process; includes both numbers-based (quantitative) and narrative-based (qualitative) data.

Continuous Quality Improvement: An iterative process of making changes and improvements to a practice or policy in its local context to increase efficiency or improve outcomes based on information that has been learned over time from evidence-building.

Evaluation: A systematic method for collecting, analyzing, and using data to examine the implementation (process or formative evaluation) and/or effectiveness (impact or summative evaluation) of a practice or policy.

Evidence-Based Decision-Making (EBDM): The intersection of the best available research evidence, decision-makers' expertise, and community needs and implementation context. Recognizes that research evidence is not the only contributing factor to decisions. Other equally important factors include resourcing, cultural values, community voice, and feasibility of implementation.

Evidence-Building: An iterative process of building evidence—including articulating a theory of change, examining implementation, and assessing outcomes—that supports a deeper understanding of the effectiveness of a practice or policy and continuous quality improvement. Follows [Colorado's Steps to Building Evidence](#).

Impact Evaluation: An evaluation that uses appropriate methods (randomized controlled trial or strong quasi-experimental design) to measure the degree to which a practice or policy causes the observed changes in outcomes.

Outputs: The activities, goods, or services provided by a practice or policy. One common output measured in process evaluations is reach or number served.

Outcomes: Measures of what a practice or policy is meant to improve for its target population; for example, improved academic achievement or reduced recidivism. Outcomes, which are typically measured in an impact evaluation, are the observable effects of the outputs according to the theory of change.

Policy: A law, ordinance, regulation, procedure, administrative action, incentive, or voluntary practice of governments or other institutions. Policies exist at the macro, meso, and micro level and set the context in which individual decisions and actions are made.

Policy Decision-Makers: Those who create policies and/or are responsible for policy implementation. Includes legislators, commissioners, board members, and the governor (who have policy setting authority); agency leaders such as executive and division directors and the governor (who have rule-interpretation authority); and administrators such as program staff (who are responsible for implementation).

Policy Influencers: Those who inform creation and/or implementation of policies. Influencers include both organizations (e.g., advocacy organizations, technical assistance providers, professional associations) and individuals directly impacted by the issue area/potential policy.

Practice: A program, intervention, or approach with explicitly defined and replicable elements that is hypothesized to improve specified outcomes for a defined target population.

Research: A systematic exploration or investigation designed to generate or contribute to generalizable knowledge.

Research Evidence: Empirical findings generated from the systematic and rigorous application of methods and analyses to help answer a question, hypothesis, or topical investigation.

State Agency: Any department, commission, council, board, bureau, committee, institution of higher education, agency, or other governmental unit of the executive, legislative, or judicial branch of the state government.

Steps to Building Evidence: Colorado's iterative five-step framework that supports stakeholders in identifying the most appropriate questions and methods to contribute to the best available research evidence for a practice or policy.

Theory of Change: Also called a conceptual model, a narrative or visual representation that articulates the logic/rationale behind why and how a practice or policy is expected to lead to a change in the desired outcomes. A theory of change is causal and at the systems level. A theory of change should be developed before assessing the implementation or outcomes of a practice or policy. Impact evaluation can support testing of the theory of change.

Unintended Consequences: Outcomes, either positive or negative, of a practice or policy that are not intended or foreseen. For example, the cobra effect happens when governments try to eradicate pests (e.g., snakes or rodents) by providing a bounty on their skin or their tail. However, infestations increase when people begin farming the animals for the bounty.

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FY 2024-25 JBC STAFF EBDM GUIDANCE

For the current budget cycle, JBC Staff has updated its EBDM guidance for analysts to follow when analyzing budget requests and assigning evidence levels to those requests. This year's guidance is focused more heavily on helping analysts decide which evidence level to place a request at based on staff's research into the request.

One difficulty with implementing EBDM from JBC Staff's point of view is the sometimes subjective nature of the evidence level designations. At times, a designation of 'theory-informed' that is obvious to one analyst might not be obvious to another analyst. The different ways that analysts understand the definitions in statute can and has led to confusion among JBC members. This is justified, as a lack of consistency on JBC Staff's part will undoubtedly lead to a lack of understand on the JBC's part. The proposed changes to statute included in this memo is staff's attempt to alleviate as much of these issues as possible. Included here are last year's guidance and this year's guidance because they should be understood together to get a full picture of how JBC Staff thinks about requests with evidence level designations.

MEMORANDUM



JOINT BUDGET COMMITTEE

TO Members of the Joint Budget Committee
FROM Mitch Burmeister, JBC Staff (303-866-3147)
DATE February 8, 2023
SUBJECT Evidence-based Decision Making Review

In general, evidence-based decision making asserts that policy decisions should be based on, or informed by, rigorously established objective evidence. This evidence can be acquired from an outside source such as a national data clearinghouse that sets standards and provides data on studies conducted around the country. Evidence can also be acquired directly from existing programs within the State. While clearinghouse data can be helpful to assist in policy decisions, data and results directly from existing programs is the ideal source – so long as the evaluation methodologies are sound.

The Governor's Office of State Planning and Budgeting (OSPB) has an established history of working with the General Assembly and with outside partners to implement a form of evidence-based decision making in the State's budget process, but until recently, had not had a dedicated partner in this effort. With the passage of S.B. 21-284 (Evidence-based Evaluations for Budget), Joint Budget Committee Staff was formally required to begin interacting with evidence-based policy. This is an evolving relationship as OSPB and JBC Staff determine the best ways to work together to make evidence-based decision making vital to Colorado's budget process.

HISTORY OF EVIDENCE-BASED DECISION MAKING IN COLORADO

The idea of using evidence to inform policy decisions in Colorado is not new. The first formal attempt at this came in 2009 with the creation of the Evidence-based Practices in Implementation for Capacity (EPIC) resource center, which worked to improve capacity in five Colorado criminal justice agencies for the implementation of evidence-based practices.

Following this first foray into using evidence to inform policy, the State then partnered with the Pew-MacArthur Results First Initiative. This was a joint effort between the General Assembly and OSPB. This work started by taking program inventories in five policy areas: adult criminal justice; juvenile justice; child welfare; behavioral health; and prevention. OSPB reported that over a three-year period, they identified \$100.4 million in expenditures on evidence-based programs.

OSPB continued their work beyond the scope of the Results First framework and beginning in the FY 2017-18 budget process, began denying agency funding requests for programs that had proven ineffective and supporting agency funding requests for new programs that had proven effective.

Building off this work, OSPB in 2017 established the Colorado Evaluation and Action Lab at the University of Denver to conduct studies of Colorado programs to advance the use of evidence-based decision making in Colorado.

SENATE BILL 21-284

At the beginning of the 2021 legislative session, JBC staff presented a memo¹ to the Committee on how evidence-based decision making (EBDM) was being implemented in the budget process, and

¹ https://leg.colorado.gov/sites/default/files/eb_policy-01-28-21_0.pdf

how the JBC could best use the information from OSPB in the yearly budget submission to inform their budget decisions. Based on this memo, legislation was formulated by the Committee and Staff and approved by the General Assembly. This legislation, S.B. 21-284, set into statute guidelines for how evidence-based decision making should be used, definitions on how to categorize levels of evidence used to evaluate a program's effectiveness, and the roles of the Committee, JBC staff, and OSPB in implementing evidence-based decision making in the budget process.

GUIDELINES FOR HOW EVIDENCE-BASED DECISION MAKING SHOULD BE USED

The statute states that:

- When appropriate, the use of data and outcome-related evidence in the analysis of programs implemented and delivered by state agencies is an effective means through which funding decisions concerning program improvement and expansion or redirection of funds can be achieved; and
- The integration of evidence-based evaluation with the budget process can be useful in the prioritization of requests for funding for new or existing programs and services in the State.

DEFINITIONS OF LEVELS OF EVIDENCE

The statute includes five definitions for the levels of evidence to be used when evaluating evidence-based budget requests.

- **Opinion-based**
 - A program or practice that reflects a low level of confidence of effectiveness, ineffectiveness, or harmfulness, as based on satisfaction surveys, personal experience, or for which there is no existing evidence about the effectiveness, ineffectiveness, or harmfulness of the program or practice.
- **Theory-informed**
 - A program or practice that reflects a moderate to low or promising level of confidence of effectiveness, ineffectiveness, or harmfulness as determined by tracking and evaluating performance measures including pre- and post-intervention evaluation of program outcomes, evaluation of program outputs, identification and implementation of a theory of change, or equivalent measures.
- **Evidence-informed**
 - A program or practice that reflects a moderate, supported, or promising level of confidence of effectiveness, ineffectiveness, or harmfulness as determined by an evaluation with a comparison group, multiple pre- and post-evaluations, or an equivalent measure.
- **Proven**
 - A program or practice that reflects a high or well-supported level of confidence of effectiveness, ineffectiveness, or harmfulness as determined by one or more high-quality randomized control trials, multiple evaluations with strong comparison groups, or an equivalent measure.
- **Not applicable**
 - None of the above definitions apply to the request. (For example, a request for 1.0 FTE for administrative assistance is not applicable because you can't measure outcomes from the addition of the FTE.)

ROLES OF THE JBC, JBC STAFF, AND OSPB

The statute also briefly described the roles of these entities as follows:

- Joint Budget Committee
 - Shall consider any available evidence-based information when determining the appropriate level of funding of a program or practice.
- Joint Budget Committee Staff
 - Shall independently analyze and describe – using the definitions above – any evidence-based evaluation of a program or practice that is provided by a state agency in a budget request; and
 - Shall include any information related to evidence levels as part of any recommendation it makes regarding a budget request.
- OSPB
 - Shall describe any evidence-based budget request using the defined evidence levels;
 - Shall provide any research that supports the implementation, continuation, or expansion of the program or practice, including any research demonstrating improved or consistent outcomes achieved by those who benefit from the program or practice;
 - Shall provide any research that supports a decrease in funding for a program or practice that may be shown to be ineffective or harmful to those receiving services; and
 - Shall provide information concerning how the evidence referenced was used in the development of the budget request.

COLORADO EVALUATION AND ACTION LAB COLLABORATION

Over the 2022 interim, JBC staff worked with OSPB and the Colorado Evaluation and Action Lab to formulate a framework for the future of Evidence-based Decision Making in Colorado. Together, we created a more precise definition of evidence-based decision making, articulated a commonly accepted vision for Colorado’s approach to evidence-based decision making, and assigned roles and responsibilities across all branches of government that align with the vision.

This collaboration has elevated evidence-based decision making from something done sporadically and somewhat piecemeal among OSPB and JBC staff to something that will hopefully move forward with a shared goal among all branches of state government and within all state agencies.

The culmination of the work done over the interim is a memo titled “Advancing Evidence-Based Decision-Making in Colorado Policymaking: A 5-Year Vision Focused on Culture and Structure”.² A few of the highlights of that memo are included here.

SHARED TENETS OF EBDM CULTURE IN POLICYMAKING

There are three main ideas that are agreed upon as being the driving forces behind a cultural shift toward EBDM. They are:

- Using data to drive better outcomes;
- Using evidence to inform investment and resource decisions; and
- Using a collective approach to sustain change.

² <https://coloradolab.org/projects/evidence-based-decision-making-in-colorado-a-5-year-vision/>

If all stakeholders agree on these three ideas, then EBDM can shift from something done only by OSPB and JBC staff to something that is fundamental to any funding request or decision made anywhere in the state.

DEFINING FEATURES OF EBDM CULTURE

While agreement on the three overarching tenets is essential in moving toward an EBDM culture in Colorado, certain features of this culture will indicate that Colorado is set up for success in implementing EBDM. Those features are:

- A **common understanding** of what EBDM is and how it works among decision-makers, agency leadership, and staff;
- **Commitment to and consistent participation in** agreed-upon EBDM strategies by decision-makers, agency leadership, and staff;
- Necessary **resources, skills, and time** for decision-makers, agency leadership, and staff to acquire the best available evidence and apply it to decision-making;
- **Systemic and robust** use of research evidence in decision-making; and
- **Engagement in an iterative process** of using existing research evidence and **generation of new research evidence** by decision-makers, agency leadership, and staff.

When these features are routinely engaged in and seen in practice, Colorado will be in a much stronger position as regards the future of EBDM.

ROLES AND RESPONSIBILITIES

Finally, the memo lays out what the roles and responsibilities of the various stakeholders in EBDM are. Included in this list of stakeholders are the legislative branch – including the Joint Budget Committee and Staff, the executive branch – including the Governor’s Office, agency leadership, staff, and legislative liaisons, and non-governmental partners – including the Colorado Evaluation and Action Lab, independent researchers and evaluators, clearinghouses, and constituents.

Staff recommends referencing the memo for a more detailed explanation of how the roles and responsibilities of each of these groups is envisioned.

JBC STAFF PROCEDURE AND WHAT THE COMMITTEE CAN EXPECT TO SEE

As a result of S.B. 21-284, JBC Staff has been hard at work to both understand how best to support the Committee regarding EBDM and how best to carry out our new statutory requirements. To that end, staff has refined its approach to presenting EBDM information in our budget documents since last budget cycle.

Last year, the Committee saw reference to evidence levels in staff briefing document, supplemental documents, and figure setting documents. This took the form of a separate subheading within the documents that explained what levels of evidence meant, the level of evidence that OSPB assigned to each budget request, and the level of evidence JBC staff assigned to requests and how their assignment differed or agreed with OSPB’s indications.

This year, staff did not include mention of evidence levels in briefing or supplemental documents, but will include these indications in our figure setting documents. The Committee can expect to see less space on the page dedicated to evidence-based decision making, but that does not mean that staff is

not spending less time on evaluating and identifying requests that have a level of evidence assigned to them.

- First, at the beginning of each figure setting document just after the Table of Contents, there is a small section titled “How to Use This Document.” We have added another paragraph to that section alerting the reader to the fact that they may encounter ‘levels of evidence’ in the document and referring them to the place in statute (Section 2-3-210 (2), C.R.S.) that defines those levels of evidence.
- Next, in each decision item for which OSPB or an Elected Official assigned a level of evidence, staff will include a section at the beginning of their write-up, between the ‘Recommendation’ and the ‘Analysis’ subheadings. This section will look like:

RECOMMENDATION: Staff recommends

EVIDENCE LEVEL: The Department indicated that this request item is **level of evidence**, and staff agrees with this designation **OR** but staff believes that this request should be classified as **level of evidence**.

ANALYSIS: This request.....

This section is to serve as a quick reference for the reader to know 1) if OSPB or the Elected Official assigned a level of evidence to the request, and 2) if JBC staff agrees or disagrees with this designation and why.

- Finally, if staff is referencing a level of evidence for the first time in a document, they will include in the “Evidence Level” section the definition of the level of evidence. This will look like:

EVIDENCE LEVEL: The Department indicated that this request item is evidence-informed, and staff agrees with this designation. **When a request item is designated ‘evidence-informed’ it means that the program “reflects a moderate, supported, or promising level of confidence related to the effectiveness, ineffectiveness, or harmfulness as determined by an evaluation with a comparison group, multiple pre- and post-evaluations, or an equivalent measure.” (Section 2-3-210 (2)(a), C.R.S.)**

The purpose of this is to again remind the reader where in statute to find these definitions, and what this specific level of evidence means.

The Committee should not expect to see any additional reference to levels of evidence consistent across all documents, but will likely see more information about staff evaluations of evidence levels in write-ups that either disagree with the OSPB/Elected Official designations or where staff feels that additional discussion of evidence levels would add value to the Committee’s decision-making process.

If, of course, the Committee has additional questions regarding evidence levels in certain write-ups, do not hesitate to ask staff to explain their evaluations or provide more information on how staff came to the conclusion they did.

MEMORANDUM



JOINT BUDGET COMMITTEE

TO JBC Staff
FROM Mitch Burmeister, Amanda Bickel, Justin Brakke
DATE November 13, 2023
SUBJECT Evidence-based Decision Making Guidance for FY 2024-25 Session

EXECUTIVE SUMMARY, I.E. WHAT IS THIS MEMO EVEN ABOUT?

- 1) We are not adding anything new to our documents or changing their structure. For reference, please see last year's guidance on Monday.com under Figure Setting Instructions on the Instructions and Resources Board.
- 2) We are making minor adjustments to the way we assign evidence levels.
- 3) Some general tips and reminders:
 - If insufficient evidence is given for a designation of 'evidence-informed' or 'proven', default to designating it 'theory-informed' in your document; and
 - If insufficient evidence is given for a designation of 'theory-informed', default to designating it 'opinion-based'.
 - In the absence of other, existing research evidence, any requests that claim 'aspirational evidence' should be designated theory-informed or opinion-based. If you have questions about what 'aspirational evidence' means, ask Mitch.
 - How we handle incremental changes is being fine-tuned. In the past, almost all FTE requests were designated 'Not Applicable', but going forward you should ask yourself what the money is actually doing – even if it is funding FTE – and if the money is contributing to an evidence-based program or practice, or across programs or practices toward a common outcome. If so, the request item is eligible for an evidence designation – even if that designation relies on the underlying program or practice as opposed to the FTE itself.
- 4) Steps to help determine what level the level of evidence *should* be. You don't have to follow these steps to the letter, but hopefully it will help you make a decision more quickly. A visual version of these steps is forthcoming.
- 5) Glossary of important terms that are commonly used in this memo and that you should be able to explain to the Committee if they have questions.

OVERARCHING GOAL

This memo aims to assist you in making decisions about what level of evidence you should assign to any one budget request. There are no new “things” to add to your documents, but we will be talking about evidence in a slightly different way this year.

GENERAL TIPS AND REMINDERS

- 1) This year OSPB included the same evidence tables in the request that they have in the past, so you should be familiar with them. There is sometimes good information to work from in those tables, but hopefully OSPB included additional evidence throughout the body of the request in a way that supports the request. So, if you are analyzing the evidence level of a request, please remember to be aware of potential additional bits of evidence within the narrative, and look out for citations to use as a starting place in your own analysis.

- 2) We are making minor changes to the way we categorize evidence levels. The impetus for this change comes from looking at the requests and JBC evidence level designations from last year. There were several instances where the analyst made reference to ‘not enough evidence’ in some form. Sometimes that lead to agreement with the Department, sometimes that lead to disagreement with the Department, depending on the analyst. If the Committee were focused solely on EBDM, they may have been confused about why ‘not enough evidence’ was sometimes categorized as Not Applicable, and sometimes as Theory-Informed. To avoid this lack of consistency we have decided the following:
- If the department designates a request as ‘Evidence-informed’ or ‘Proven’ but you think it hasn’t provided enough evidence to successfully make that case, then default to a ‘Theory-informed’ designation – so long as the request is for a program/practice that *is eligible* for an evidence designation.
 - If the department designates a request as ‘Theory-informed’ but you think it hasn’t provided enough evidence to successfully make that case, then default to an ‘Opinion-based’ designation – so long as the request is for a program/practice that *is eligible* for an evidence designation.

The goal is to strongly separate ‘Not Applicable’ from the other evidence levels. ‘Not Applicable’ should *only* be used when the request is not for a **program or practice** (definition of program or practice in the short glossary at the end of this document). If the request *could be eligible* for an evidence designation, we want to avoid the use of ‘Not Applicable’.

- 3) Related to point 2, we noticed “aspirational evidence” in some of last year’s requests. This showed up when the department didn’t have any evidence to speak of, but claimed that there *could* be a study done or they *could* start collecting data to show how good the program is. If you feel that the request would fund a program or practice that would be conducive to evidence collection, but there is no evidence currently, that will also be labeled as ‘Theory-informed’ or ‘Opinion-based’ as opposed to ‘Not Applicable’.
- 4) In the past, whether to assign an evidence level or not applicable to incremental requests has been too binary because we have basically said that FTE = not evidence-based, but this guidance will be more nuanced and will hopefully lead to more precise evidence designations. FTE requests on an island are still ‘not applicable’, but if the FTE request supports an underlying program or practice that has or is eligible for an evidence designation, then that request should not be ‘not applicable’. In the context of evidence-based budget requests, incremental changes are **modifications to resources provided for a program or practice, or modifications to the resources provided for agency infrastructure that affect multiple programs or practices.**
- If an incremental change is connected directly to an existing program or practice, evidence should be provided for the underlying program or practice. If possible, there should also be evidence related directly to the incremental change.
 - If an incremental change is not connected directly to an existing program or practice, but would bolster infrastructure across multiple programs or practices that are driving toward the same outcome, there should be evidence provided that shows improved outcomes in each of the programs or practices that the infrastructure supports.

- If the request is an incremental change, the type of modification must be a clear driver of change of the program or practice. This is where you can ask yourself, “What is the money actually doing?” If the money is not changing the program in an evidence-based way, then the request is not related to a clear driver of change.

5) Examples:

- a. The following are good examples of incremental changes linked to a program or practice from last year’s requests:
 - i. Department of Agriculture Incremental change in FTE: R-01 Climate Drought-Smart Agriculture Marketing Specialist. Recommended evidence designation: Theory-informed
 1. Funding for a Marketing and Communications Specialist to enable CDA to create and amplify market opportunities for Colorado producers who are growing climate and drought-smart commodities. This position is closely modeled after existing programs, including Colorado Proud and the International Marketing program within the Markets Division. These programs regularly collect and analyze data to verify the program’s performance and expand markets for Colorado commodities. These data have frequently been reported in the Department’s performance measures as it has been a long standing Wildly Important Goal for CDA. Consistent with the definition of a program, the underlying program has explicitly defined and replicable elements that are hypothesized to improve specified outcomes (Number of producers implementing climate-smart management practices) for a defined target population (Colorado producers who are growing climate and drought-smart commodities).
 - ii. HCPF Incremental change in FTE and technology: R-04 Improving Medicaid Access for Child Welfare Youth. Recommended evidence designation: Theory-informed
 1. Requests funding to more equitably and effectively connect children and youth in child welfare to physical and behavioral health services through Medicaid. “This request will fund the needed staff and technology enhancements to address the long term recommendations [of a root cause task force] to better serve children and youth in Child Welfare.” The underlying program (patient navigators, such as the Child Welfare Medicaid Specialist team in this request) has explicitly defined and replicable elements that are hypothesized to improve specified outcomes (reduced eligibility disruptions, more children and youth more continuously enrolled in Child Welfare Medicaid, improved health outcomes) for a defined target population (Colorado children and youth in child welfare).

GUIDELINES FOR DETERMINING EVIDENCE DESIGNATIONS

What follows here is a guide to help you quickly determine what an evidence level designation should be. This is ultimately up to you, but this should provide a structure for you to use when thinking about what you are going to designate something as. We are hoping to send you a flowchart prior to figure setting for a quick visual reference guide, but we'll start with this.

- 1) Is the budget request item a program or practice? (A program or practice is defined as 'any explicitly defined **intervention** or approach with **replicable** elements that is hypothesized to improve specific **outcomes** for a clearly **defined population**.')
- a. Examples of programs or practices:
 - i. R-09: Child Sexual Abuse Prevention Training Restoration. Nationally documented curriculum for replicable delivery.
 - ii. R-11: Imagination Library Growth. Clear delivery mechanisms with a quality logic model showing link between inputs and outcomes.
- b. Examples of NOT programs or practices:
 - i. Funding streams (CBCAP Grants, per pupil K-12 school funding)
 - ii. Task forces

If the budget request is **NOT** a program or practice, stop and designate as '**Not Applicable**'.
If the budget request **IS** a program or practice, continue to step 2.

- 2) Is there a theory of change connecting the essential elements of the program or practice to the desired outcomes? A theory of change is a narrative that articulates the rationale behind why and how a practice or policy is expected to lead to a change in the desired outcomes. A theory of change is causal and at the systems level.

If the budget request has **NO** theory of change, stop and designate as '**Opinion-based**'.
If the budget request **DOES** have a theory of change, continue to step 3.

- 3) Do relevant studies exist?
 - a. Check ScienceDirect and clearinghouses (e.g. Blueprints) to determine if any studies exist about this program or practice.
 - b. If studies do exist, are they relevant?
 - i. Are they about the same or substantially similar programs as presented in the budget request?
 - ii. Are they testing outcome(s) aligned with those specified in the budget request?
 - iii. Are they focused on the same clearly defined target population as that specified in the budget request?

If there are **NO** relevant studies, stop and designate as '**Theory-informed**'.
If there **ARE** relevant studies, continue to step 4.

- 4) How rigorous are existing studies, Part I
- a. Does at least one study with a comparison group exist that demonstrates a positive, statistically significant impact for one or more outcomes specified in the budget request?

OR

- b. Do multiple pre-post outcome studies exist and does each study demonstrate at least one positive, statistically significant impact for one or more outcomes specified in the budget request?

If the studies **DO NOT** have this degree of rigor, stop and designate as ‘**Theory-informed**’.
If the studies **DO** have this degree of rigor, continue to step 5.

- 5) How rigorous are existing studies, Part II
- a. Does at least one study exist with a comparison group that is randomly assigned that demonstrates a positive, statistically significant impact for one or more outcomes specified in the budget request?

OR

- b. Do multiple studies exist using strong comparison groups (e.g., using matching models) and does each study demonstrate a positive, statistically significant impact for one or more outcomes specified in the budget request?

If the studies **DO NOT** have this degree of rigor, stop and designate as ‘**Evidence-informed**’.
If the studies **DO** have this degree of rigor, designate as ‘**Proven**’.

GLOSSARY

Program or practice

Any explicitly defined intervention or approach with replicable elements that is hypothesized to improve specified outcomes for a clearly defined target population

Output

Activities, goods, or services provided by a practice or policy. One common output measured in process evaluations is reach or number served.

Outcome

Measures of what a practice or policy is meant to improve for its target population. For example, improved academic achievement or reduced recidivism. These are the observable effects of the outputs according to the theory of change.

Statistical Significance

A measure of the probability of the null hypothesis being true compared to the acceptable level of uncertainty regarding the true answer. If you are reading academic studies, you will come across this term. It is generally a reference to one or more of several different variables including the p-value, alpha, and effect size. **It would be wise to look at what the author of the study says about the statistical significance of the results, they will be better at determining this than us.** You can generally find this information in the results section of a study or within a table that is explaining the results.

PROPOSED STATUTORY CHANGES

It is in this context that staff is proposing changes to statute to clarify roles, adjust existing definitions, and add new definitions. Staff believes that these changes will make it easier for:

- JBC Staff to analyze requests with evidence level designations;
- JBC members to understand evidence level designations that are provided by OSPB and the state agencies;
- JBC members to place disagreement on evidence level designations in the correct context, and;
- JBC members and staff to hold OSPB and state agencies accountable for providing updates and evaluations of programs that were requested and approved with evidence level designations.

The following table outlines the proposed changes to statute and the reason behind why staff believes those changes are necessary.

Bill Section	Change Summary	Rationale
Section 2-3-210 (1)(a)	Adds definition of “evidence-based decision-making”	This term is currently used in statute, but not defined.
	Introduces the term “best available research evidence”	This term is foundational to assessing the quality of research evidence.
	Strengthens justification for why use of the best available research evidence and ongoing evidence-building is important for funding decisions.	Builds on existing rationale for why this statute is important and identifies the need for both use of existing evidence and evidence-building.
Section 2-3-210 (2) and (3)	Distinguishes “definitions” used in article 3 from “evidence designations”, placing definitions and evidence designations in separate articles of the bill	Evidence designations are applied to programs and practices, while definitions apply broadly to implementation of the statute.
	Adds the following definitions: <ul style="list-style-type: none"> • “best available research evidence” • “not applicable” • “outcomes” • “program or practice” 	Promotes clarity and ensures consistent application of the legislation across branches of government. Aligns statute with standard research and evaluation definitions, including the Colorado evidence-based decision-making glossary .
	Removes the following designations: <ul style="list-style-type: none"> • “opinion-based program or practice” • “theory-informed program or practice” • “not applicable” 	Opinion-based and theory-informed are not yet informed by research evidence and, therefore, are not applicable as evidence designations. Not applicable has been removed as an evidence designation and added to the definitions list instead.

	Adjusts the following designations: <ul style="list-style-type: none"> • “evidence-informed” program or practice • “proven” program or practice 	These adjustments and additions align statute with national scientific Clearinghouse designations of effectiveness. This helps ensure alignment between state and federal legislation requiring use of evidence-based programs and practices. Addition of “harmful” shows the direction of the research evidence. Addition of “insufficient evidence” distinguishes a lack of research evidence from “not applicable”
	Adds the following designations: <ul style="list-style-type: none"> • “promising” program or practice • “harmful” program or practice • “insufficient evidence” 	
Section 2-3-210 (4)	Replaces “evidence-based evaluations of a program or practice” with “best available research evidence regarding a program or practice’s effectiveness”	Best available research evidence is the standard approach and term used by the research community.
	Adjusts (3)(b) in existing statute to narrow and clarify what OSPB should provide in budget requests or budget amendment requests regarding evidence: <ul style="list-style-type: none"> • “any research” is replaced with “summary of best available research evidence” • (3)(b)(I) and (II) are combined because this separation is no longer needed with addition of “harmful” designation • (3)(b)(II) to clarify how the best available research evidence is connected to the request 	These adjustments and additions align terminology throughout the bill, while also creating opportunity for transparent attention to evidence-building/future evaluation.
	Adds “(III) Plans to evaluate the program or practice to build evidence regarding its effectiveness.”	
	Aligns the role of JBC staff with their standard responsibilities as described in Section 2-3-204, C.R.S.	This promotes feasibility in responsibilities of JBC staff and aligns roles across state agencies, JBC, and OSPB to promote consistent use of the best available research evidence.

	Removes requirement of independent analysis of all evidence-based evaluations by JBC staff in favor of review and verification of the best available research evidence	Aligns statute with the level of analysis JBC staff is able to perform given existing workload and resources
Section 2-3-210 (4)	Incorporates the existing Sections 2-3-210(4) and (5) on JBC and state agency use of evidence designations into revised 4(a), (b), and (c)	Reduces duplication and aligns roles and responsibilities.
Section 2-3-203	Replaces “any available evidence-based information specified in section 2-3-210” with “the designation provided in section 2-3-210 (4)”	Promotes consistent use of evidence designations and aligns language in the bill.
Section 2-3-204	Replaces “evidence-based analysis required by section 2-3-210” with “the evidence designation and rationale as required by section 2-3-210 (4)”	
	Removes requirement of JBC staff to support all legislators in incorporating evidence-based assessments into legislation, upon request	Supporting the full General Assembly in using the best available evidence during policymaking is vital, but it is not a feasible role for JBC staff alone to play.

The following pages include the existing statute, the proposed changes to the statute, and a ‘clean’ version of the statute if all of these changes are approved.

An Act

SENATE BILL 21-284

BY SENATOR(S) Hansen and Rankin, Buckner, Cooke, Kolker, Lundeen, Moreno, Priola, Simpson, Sonnenberg, Winter, Garcia;
also REPRESENTATIVE(S) Herod and Larson, Burnett, Duran, Esgar, Exum, Gonzales-Gutierrez, Hooton, Jodeh, Kipp, McCluskie, Michaelson Jenet, Ricks, Snyder, Young.

CONCERNING EVIDENCE-BASED EVALUATIONS TO ASSIST THE GENERAL ASSEMBLY IN DETERMINING THE APPROPRIATE LEVEL OF FUNDING FOR A PROGRAM OR PRACTICE, AND, IN CONNECTION THEREWITH, MAKING AN APPROPRIATION.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. In Colorado Revised Statutes, **add** 2-3-210 as follows:

2-3-210. Evidence-based decision-making - budget requests - legislative declaration - definitions. (1) THE GENERAL ASSEMBLY HEREBY FINDS AND DECLARES THAT:

(a) WHEN APPROPRIATE, THE USE OF DATA AND OUTCOME-RELATED EVIDENCE IN THE ANALYSIS OF PROGRAMS IMPLEMENTED AND DELIVERED BY

Capital letters or bold & italic numbers indicate new material added to existing law; dashes through words or numbers indicate deletions from existing law and such material is not part of the act.

STATE AGENCIES IS AN EFFECTIVE MEANS THROUGH WHICH FUNDING DECISIONS CONCERNING PROGRAM IMPROVEMENT AND EXPANSION OR REDIRECTION OF FUNDS CAN BE ACHIEVED; AND

(b) THE INTEGRATION OF EVIDENCE-BASED EVALUATION WITH THE BUDGET PROCESS WILL PROVIDE MEMBERS OF THE GENERAL ASSEMBLY ADDITIONAL INFORMATION THAT WILL BE USEFUL IN THE PRIORITIZATION OF REQUESTS FOR FUNDING FOR NEW OR EXISTING PROGRAMS AND SERVICES IN THE STATE.

(2) AS USED IN THIS ARTICLE 3, UNLESS THE CONTEXT OTHERWISE REQUIRES:

(a) "EVIDENCE-INFORMED PROGRAM OR PRACTICE" MEANS A PROGRAM OR PRACTICE THAT REFLECTS A MODERATE, SUPPORTED, OR PROMISING LEVEL OF CONFIDENCE OF EFFECTIVENESS, INEFFECTIVENESS, OR HARMFULNESS AS DETERMINED BY AN EVALUATION WITH A COMPARISON GROUP, MULTIPLE PRE- AND POST-EVALUATIONS, OR AN EQUIVALENT MEASURE.

(b) "NOT APPLICABLE" MEANS THE DEFINITIONS IDENTIFIED IN SUBSECTIONS (2)(a), (2)(c), (2)(d), AND (2)(f) OF THIS SECTION ARE NOT APPLICABLE.

(c) "OPINION-BASED PROGRAM OR PRACTICE" MEANS A PROGRAM OR PRACTICE THAT REFLECTS A LOW LEVEL OF CONFIDENCE OF EFFECTIVENESS, INEFFECTIVENESS, OR HARMFULNESS, AS BASED ON SATISFACTION SURVEYS, PERSONAL EXPERIENCE, OR FOR WHICH THERE IS NO EXISTING EVIDENCE ABOUT THE EFFECTIVENESS, INEFFECTIVENESS, OR HARMFULNESS OF THE PROGRAM OR PRACTICE.

(d) "PROVEN PROGRAM OR PRACTICE" MEANS A PROGRAM OR PRACTICE THAT REFLECTS A HIGH OR WELL-SUPPORTED LEVEL OF CONFIDENCE OF EFFECTIVENESS, INEFFECTIVENESS, OR HARMFULNESS AS DETERMINED BY ONE OR MORE HIGH-QUALITY RANDOMIZED CONTROL TRIALS, MULTIPLE EVALUATIONS WITH STRONG COMPARISON GROUPS, OR AN EQUIVALENT MEASURE.

(e) "STATE AGENCY" MEANS ANY DEPARTMENT, COMMISSION, COUNCIL, BOARD, BUREAU, COMMITTEE, INSTITUTION OF HIGHER

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EDUCATION, AGENCY, OR OTHER GOVERNMENTAL UNIT OF THE EXECUTIVE, LEGISLATIVE, OR JUDICIAL BRANCH OF STATE GOVERNMENT.

(f) "THEORY-INFORMED PROGRAM OR PRACTICE" MEANS A PROGRAM OR PRACTICE THAT REFLECTS A MODERATE TO LOW OR PROMISING LEVEL OF CONFIDENCE OF EFFECTIVENESS, INEFFECTIVENESS, OR HARMFULNESS AS DETERMINED BY TRACKING AND EVALUATING PERFORMANCE MEASURES INCLUDING PRE- AND POST-INTERVENTION EVALUATION OF PROGRAM OUTCOMES, EVALUATION OF PROGRAM OUTPUTS, IDENTIFICATION AND IMPLEMENTATION OF A THEORY OF CHANGE, OR EQUIVALENT MEASURES.

(3) (a) IF A STATE AGENCY OR THE OFFICE OF STATE PLANNING AND BUDGETING INCLUDES AN EVIDENCE-BASED EVALUATION OF A PROGRAM OR PRACTICE IN A BUDGET REQUEST OR BUDGET AMENDMENT REQUEST SUBMITTED IN ACCORDANCE WITH SECTION 2-3-208, THEN THE STATE AGENCY OR OFFICE SHALL DESCRIBE THE PROGRAM OR PRACTICE USING THE DEFINITIONS SET FORTH IN THIS SECTION.

(b) IF SUBSECTION (3)(a) OF THIS SECTION APPLIES, THEN THE STATE AGENCY OR THE OFFICE OF STATE PLANNING AND BUDGETING SHALL ALSO PROVIDE THE FOLLOWING INFORMATION:

(I) ANY RESEARCH THAT SUPPORTS THE IMPLEMENTATION, CONTINUATION, OR EXPANSION OF THE PROGRAM OR PRACTICE, INCLUDING ANY RESEARCH DEMONSTRATING IMPROVED OR CONSISTENT OUTCOMES ACHIEVED BY THOSE WHO BENEFIT FROM THE PROGRAM OR PRACTICE;

(II) ANY RESEARCH THAT SUPPORTS A DECREASE IN FUNDING FOR A PROGRAM OR PRACTICE THAT MAY BE SHOWN TO BE INEFFECTIVE OR HARMFUL TO THOSE RECEIVING SERVICES; AND

(III) INFORMATION CONCERNING HOW THE EVIDENCE REFERENCED WAS USED IN THE DEVELOPMENT OF THE BUDGET REQUEST OR BUDGET AMENDMENT REQUEST.

(c) IF A STATE AGENCY PROVIDES AN EVIDENCE-BASED EVALUATION OF A PROGRAM OR PRACTICE IN A BUDGET REQUEST OR BUDGET REQUEST AMENDMENT, JOINT BUDGET COMMITTEE STAFF SHALL INDEPENDENTLY ANALYZE AND DESCRIBE THE PROGRAM OR PRACTICE USING THE DEFINITIONS SET FORTH IN THIS SECTION.

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(4) JOINT BUDGET COMMITTEE STAFF SHALL INCLUDE ANY INFORMATION SPECIFIED IN SUBSECTION (3) OF THIS SECTION AS PART OF ANY RECOMMENDATION IT MAKES REGARDING A BUDGET REQUEST OR BUDGET AMENDMENT REQUEST.

(5) WHENEVER A STATE AGENCY IS REQUIRED TO UNDERTAKE AN EVIDENCE-BASED ANALYSIS OF A PROGRAM OR PRACTICE, THE STATE AGENCY SHALL USE THE DEFINITIONS SET FORTH IN THIS SECTION, UNLESS OTHER DEFINITIONS ARE PROVIDED BY LAW.

SECTION 2. In Colorado Revised Statutes, 2-3-203, **add** (4) as follows:

2-3-203. Powers and duties of the joint budget committee.

(4) THE JOINT BUDGET COMMITTEE SHALL CONSIDER, AS ONE OF MANY FACTORS, ANY AVAILABLE EVIDENCE-BASED INFORMATION SPECIFIED IN SECTION 2-3-210 WHEN DETERMINING THE APPROPRIATE LEVEL OF FUNDING OF A PROGRAM OR PRACTICE.

SECTION 3. In Colorado Revised Statutes, 2-3-204, **add** (3) as follows:

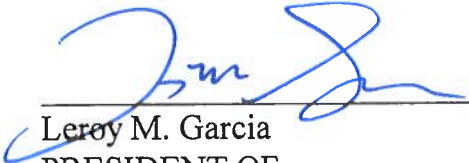
2-3-204. Staff director, assistants, and consultants. (3) THE STAFF DIRECTOR SHALL APPOINT ADDITIONAL STAFF AS NECESSARY TO PROVIDE THE EVIDENCE-BASED ANALYSIS REQUIRED BY SECTION 2-3-310 (3)(c). UPON REQUEST, JOINT BUDGET COMMITTEE STAFF SHALL ALSO ASSIST LEGISLATORS IN INCORPORATING EVIDENCE-BASED ASSESSMENTS INTO LEGISLATION.


SECTION 4. Appropriation. For the 2021-22 state fiscal year, \$41,245 is appropriated to the legislative department for use by the joint budget committee. This appropriation is from the general fund and is based on an assumption that the joint budget committee will require an additional 0.3 FTE. To implement this act, the joint budget committee may use this appropriation to perform analysis of budget requests.


SECTION 5. Act subject to petition - effective date. This act takes effect at 12:01 a.m. on the day following the expiration of the ninety-day period after final adjournment of the general assembly; except that, if a referendum petition is filed pursuant to section 1 (3) of article V

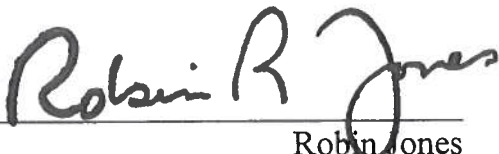
PAGE 4-SENATE BILL 21-284

of the state constitution against this act or an item, section, or part of this act within such period, then the act, item, section, or part will not take effect unless approved by the people at the general election to be held in November 2022 and, in such case, will take effect on the date of the official declaration of the vote thereon by the governor.

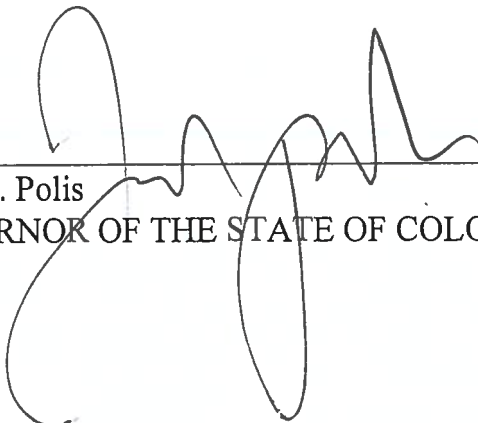

Leroy M. Garcia
PRESIDENT OF
THE SENATE


Alec Garnett
SPEAKER OF THE HOUSE
OF REPRESENTATIVES


Cindi L. Markwell
SECRETARY OF
THE SENATE


Robin Jones
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES

APPROVED July 6, 2021 at 2:30 pm
(Date and Time)


Jared S. Polis
GOVERNOR OF THE STATE OF COLORADO

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An Act

SENATE BILL 21-284

BY SENATOR(S) Hansen and Rankin, Buckner, Cooke, Kolker, Lundeen, Moreno, Priola, Simpson, Sonnenberg, Winter, Garcia;
also REPRESENTATIVE(S) Herod and Larson, Burnett, Duran, Esgar, Exum, Gonzales-Gutierrez, Hooton, Jodeh, Kipp, McCluskie, Michaelson Jenet, Ricks, Snyder, Young.

CONCERNING EVIDENCE-BASED EVALUATIONS TO ASSIST THE
GENERAL ASSEMBLY IN DETERMINING THE APPROPRIATE
LEVEL OF FUNDING FOR A PROGRAM OR PRACTICE, AND,
IN CONNECTION THEREWITH, MAKING AN APPROPRIATION.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. In Colorado Revised Statutes, **add** 2-3-210 as follows:

2-3-210. Evidence-based decision-making - budget requests - legislative declaration - definitions. (1) The General Assembly Hereby Finds And Declares That:

(a) EVIDENCE-BASED DECISION-MAKING (EBDM) IS THE INTERSECTION OF THE BEST AVAILABLE RESEARCH EVIDENCE, DECISION-MAKERS' EXPERTISE, AND CONSTITUENT NEEDS AND IMPLEMENTATION CONTEXT. EBDM RECOGNIZES THAT RESEARCH EVIDENCE ALONE IS NOT THE ONLY CONTRIBUTING FACTOR TO POLICY AND BUDGET DECISIONS;

(b) ~~When Appropriate,~~ The Use Of THE BEST AVAILABLE EVIDENCE ~~Data And Outcome-Related Evidence~~ In The Analysis Of Programs AND PRACTICES, AND/OR INCREMENTAL CHANGES THEREWITH, Implemented And Delivered By State Agencies Is An Effective Means Through Which Funding Decisions Concerning ~~Program~~

Improvement, ~~And~~ Expansion, DISCONTINUATION, Or Redirection Of Funds Can Be Achieved; ~~And~~

(c) The Integration Of THE BEST AVAILABLE EVIDENCE ON THE EFFECTIVENESS OF PROGRAMS AND PRACTICES ~~Evidence-Based Evaluation~~ withIN The Budget Process Will Provide Members Of The General Assembly ~~Additional~~ Information That CAN BE USED ~~will Be Useful~~ In The Prioritization Of Requests For Funding For New Or Existing Programs OR PRACTICES ~~and Services~~ In The State; AND

(d) STATE AGENCIES SHALL PARTICIPATE IN THE EVIDENCE-BASED DECISION-MAKING PROCESS, INCLUDING, BUT NOT LIMITED TO, INVESTING IN EVIDENCE-BUILDING OVER TIME TO WORK TOWARD THE EVIDENCE DESIGNATIONS NAMED IN THIS SECTION, AS APPLICABLE.

(2) As Used In This Article 4 ~~3~~, THE FOLLOWING DEFINITIONS ARE APPLIED: ~~Unless The Context Otherwise Requires~~

(a) “BEST AVAILABLE RESEARCH EVIDENCE” REFERS TO THE WEIGHT OF THE RESEARCH EVIDENCE FROM THE MOST RIGOROUS AND RELEVANT STUDIES AVAILABLE ABOUT A PROGRAM OR PRACTICE, IDENTIFIED USING A SYSTEMIC PROCESS.

(b) “NOT APPLICABLE” MEANS ANYTHING THAT DOES NOT MEET THE DEFINITION OF “PROGRAM OR PRACTICE”.

(c) “OUTCOMES” MEAN MEASURES OF WHAT A PROGRAM OR PRACTICE IS MEANT TO IMPROVE FOR ITS TARGET POPULATION.

(d) “PROGRAM OR PRACTICE” MEANS A PROGRAM, INTERVENTION, OR APPROACH WITH EXPLICITLY DEFINED AND REPLICABLE ELEMENTS THAT IS HYPOTHEZIZED TO IMPROVE SPECIFIED OUTCOMES FOR A DEFINED TARGET POPULATION.

(e) “State Agency” Means Any Department, Commission, Council, Board, Bureau, Committee, Institution Of Higher Education, Agency, Or Other Government Unit Of Executive, Legislative, Or Judicial Branch Of State Government.

(3) AS USED IN ARTICLE 4, THE FOLLOWING EVIDENCE DESIGNATIONS ARE ASSIGNED TO A PROGRAM OR PRACTICE:

(a) "Evidence-Informed" ~~Program Or Practice~~ Means THAT THE BEST AVAILABLE RESEARCH EVIDENCE SUPPORTS A PROGRAM OR PRACTICE’S EFFECTIVENESS AND INCLUDES AT LEAST ONE QUALITY PRE-POST EVALUATION. ~~A Program Or Practice That Reflects A Moderate, Supported, Or Promising Level Of Confidence Of Effectiveness, Ineffectiveness, Or Harmfulness As Determined By An Evaluation With A Comparison Group, Multiple Pre- and Post-Evaluations, Or An Equivalent Measure.~~

(b) "HARMFUL" MEANS THAT THE BEST AVAILABLE RESEARCH EVIDENCE DEMONSTRATES HARM AND INCLUDES AT LEAST ONE QUALITY PRE-POST EVALUATION.

(c) “INSUFFICIENT EVIDENCE” MEANS THE BEST AVAILABLE RESEARCH EVIDENCE IS NOT YET ROBUST ENOUGH TO ACHIEVE AN EVIDENCE DESIGNATION OF “EVIDENCE-INFORMED,” “PROMISING,” “PROVEN,” OR “HARMFUL,” AS DEFINED IN SUBSECTION 3.

~~(b) Not Applicable" Means The Definitions Identified In Subsections (2)(A), (2)(C), (2)(D), And (2)(F) Of This Section Are Not Applicable.~~

(d) "PROMISING" MEANS THAT THE BEST AVAILABLE RESEARCH EVIDENCE SUPPORTS A PROGRAM OR PRACTICE’S EFFECTIVENESS AND INCLUDES AT LEAST ONE HIGH-QUALITY EVALUATION WITH A STRONG COMPARISON GROUP. ~~Opinion-Based Program Or Practice" Means A Program Or Practice That Reflects A Low~~

~~Level Of Confidence Of Effectiveness, Ineffectiveness, Or Harmfulness, As Based On Satisfaction Surveys, Personal Experience, Or For Which There Is No Existing Evidence About The Effectiveness, Ineffectiveness, Or Harmfulness Of The Program Or Practice.~~

(e) ~~"Proven Program Or Practice"~~ Means THAT THE BEST AVAILABLE RESEARCH EVIDENCE SUPPORTS A PROGRAM OR PRACTICE'S EFFECTIVENESS AND INCLUDES AT LEAST ~~A Program Or Practice That Reflects A High Or Well-Supported Level Of Confidence Of Effectiveness, Ineffectiveness, Or Harmfulness As Determined By One Or More~~ ONE High-Quality Randomized Control Trials, OR AT LEAST TWO QUALITY EVALUATIONS WITH STRONG COMPARISON GROUPS. ~~, Or An Equivalent Measure.~~

~~(f) "Theory-Informed Program Or Practice" Means A Program Or Practice That Reflects A Moderate To Low Or Promising Level Of Confidence Of Effectiveness, Ineffectiveness, Or Harmfulness As Determined By Tracking And Evaluating Performance Measures Including Pre- And Post-Intervention Evaluation Of Program Outcomes, Evaluation Of Program Outputs, Identification And Implementation Of A Theory Of Change, Or Equivalent Measures.~~

~~4(3)(a) If A State Agency Or The Office Of State Planning And Budgeting Includes INFORMATION ON THE BEST AVAILABLE RESEARCH EVIDENCE REGARDING An Evidence-Based Evaluation Of A Program Or Practice'S EFFECTIVENESS In A Budget Request Or Budget Amendment Request Submitted In Accordance With Section 2-3-208, Then The State Agency Or Office Shall Describe The Program Or Practice Using The DESIGNATIONS Definitions Set Forth In SUB-SECTION (3a) TO (3e). This Section.~~

(b) If Subsection 4(3)(a) Of This Section Applies, Then The State Agency Or The Office Of State Planning And Budgeting Shall ~~Also~~ Provide The Following Information TO SUPPORT JUSTIFICATION OF THE SELECTED EVIDENCE DESIGNATION.

(I) A SUMMARY OF THE BEST AVAILABLE RESEARCH

EVIDENCE ABOUT THE PROGRAM OR PRACTICE; ~~Any Research That Supports The Implementation, Continuation, Or Expansion Of The Program Or Practice, Including Any Research Demonstrating Improved Or Consistent Outcomes Achieved By Those Who Benefit From The Program Or Practice;~~

~~(H) — Any Research That Supports A Decrease In Funding For A Program Or Practice That May Be Shown To Be Ineffective Or Harmful To Those Receiving Services; And~~

(II) HOW THE BEST AVAILABLE RESEARCH EVIDENCE IS CONNECTED TO ~~Information Concerning How The Evidence Referenced Was Used To Justify~~ The Budget Request Or Budget Amendment Request.

(III) PLANS TO EVALUATE THE PROGRAM OR PRACTICE TO BUILD EVIDENCE REGARDING ITS EFFECTIVENESS

(c) If SUBSECTION (4A) OF THIS SECTION APPLIES, AS PART OF THEIR RESPONSIBILITIES AS DESCRIBED IN COLORADO REVISED STATUTES, 2-3-204, ~~THE A State Agency Provide An Evidence-Based Evaluation Of A Program Or Practice In A Budget Request Or Budget Request Amendment,~~ Joint Budget Committee Staff Shall REVIEW THE SUMMARY OF THE BEST AVAILABLE RESEARCH EVIDENCE PROVIDED IN SUBSECTION (4b) AND OTHER RELEVANT EVIDENCE, AS NEEDED, AND INCLUDE THE EVIDENCE DESIGNATION AS PART OF ANY RECOMMENDATION IT MAKES REGARDING A BUDGET REQUEST OR BUDGET AMENDMENT REQUEST. ~~Independently Analyze And Describe The Program Or Practice Using The Definitions Set Forth In This Section.~~

~~(4) — Joint Budget Committee Staff Shall Include Any Information Specified in Subsection (3) Of This Section As Part Of Any Recommendation It Makes Regarding A Budget Request Or Budget Amendment Request.~~

~~(5) — Whenever A State Agency Is Required To Undertake An Evidence-Based Analysis Of A Program Or Practice, The State Agency Shall Use The Definitions Set Forth In This Section, Unless Other Definitions Are Provided By Law.~~

SECTION 2. In Colorado Revised Statutes, 2-3-203, **add** (4) as follows:

2-3-203. Powers and duties of the joint budget committee.

(4) The Joint Budget Committee Shall Consider, As One Of Many Factors, THE EVIDENCE DESIGNATION PROVIDED IN SECTION 1(4) ~~Any Available Evidence-Based Information Specified in Section 2-3-201~~ When Determining The Appropriate Level Of Funding FOR ~~of~~ A Program Or Practice.

SECTION 3. In Colorado Revised Statutes, 2-3-204, **add** (3) as follows:

2-3-204. Staff director, assistants, and consultants. (3) The Staff

Director Shall Appoint Additional Staff As Necessary To Provide The EVIDENCE DESIGNATION AND RATIONALE AS ~~Evidence-Based Analysis Required By Section 2-3-210 (4). Upon Request, Joint Budget Committee Staff Shall Also Assist Legislators In Incorporating Evidence-Based Assessments Into Legislation.~~

~~**SECTION 4. Appropriation.** For the 2021-22 state fiscal year, \$41,245 is appropriated to the legislative department for use by the joint budget committee. This appropriation is from the general fund and is based on an assumption that the joint budget committee will require an additional 0.3 FTE. To implement this act, the joint budget committee may use this appropriation to perform analysis of budget requests.~~

SECTION 4 -5. Act subject to petition - effective date. This act takes effect at 12:01 a.m. on the day following the expiration of the ninety-day period after final adjournment of the general assembly; except that, if a referendum petition is filed pursuant to section 1 (3) of article V of the state constitution against this act or an item, section, or part of this act within such period, then the act, item, section, or part will not take effect unless approved by the people at the general election to be held in November 2024 and, in such case, will take effect on the data of the official declaration of the vote by the governor.

2-3-210. Evidence-based decision-making - budget requests - legislative

declaration - definitions. (1) The general assembly hereby finds and declares that:

- (a) Evidence-based decision-making (EBDM) is the intersection of the best available research evidence, decision-makers' expertise, and constituent needs and implementation context. EBDM recognizes that research evidence alone is not the only contributing factor to policy and budget decisions;
- (b) The use of the best available evidence in the analysis of programs and practices, and/or incremental changes therewith, implemented and delivered by state agencies is an effective means through which funding decisions concerning improvement, expansion, discontinuation, or redirection of funds can be achieved;
- (c) The integration of the best available evidence on the effectiveness of programs and practices within the budget process will provide members of the General Assembly information that can be used in the prioritization of requests for funding for new or existing programs or practices in the state; and
- (d) State agencies shall participate in the evidence-based decision-making process, including, but not limited to, investing in evidence-building over time to work toward the evidence designations named in this section, as applicable.

(2) As used in this article 4, the following definitions are applied:

- (a) "Best available research evidence" refers to the weight of the research evidence from the most rigorous and relevant studies available about a program or practice, identified using a systemic process.
- (b) "Not Applicable" means anything that does not meet the definition of "program or practice"
- (c) "Outcomes" mean measures of what a program or practice is meant to improve for its target population.
- (d) "Program or practice" means a program, intervention, or approach with explicitly defined and replicable elements that is hypothesized to improve specified outcomes for a defined target population.
- (e) "State agency" means any department, commission, council, board, bureau, committee, institution of higher education, agency, or other governmental unit of the executive, legislative, or judicial branch of state government.

(3) As used in article 4, the following evidence designations are assigned to a program or practice:

- (a) "Evidence-Informed" means that the best available research evidence supports a program or practice's effectiveness and includes at least one quality pre-post evaluation.
- (b) "Harmful" means that the best available research demonstrates harm and includes at least one quality pre-post evaluation.
- (c) "Insufficient evidence" means the best available research evidence is not yet robust enough to achieve an evidence designation of "evidence-informed," "promising," "proven," or "harmful," as defined in this subsection 3.

- (d) “Promising” means that the best available research evidence supports a program or practice’s effectiveness and includes at least one quality evaluation with a strong comparison group.
- (e) “Proven” means that the best available research evidence supports a program or practice’s effectiveness and includes at least one quality randomized controlled trial, or at least two quality evaluations with strong comparison groups.

(4) (a) If a state agency or the Office of State Planning and Budgeting includes information on the best available research evidence regarding a program or practice’s effectiveness in a budget request or budget amendment request submitted in accordance with section 2-3-208, then the state agency or office shall describe the program or practice using the designations set forth in sub-section (3)(a) to (3)(e).

(b) If subsection (4)(a) of this section applies, then the state agency or the Office of State Planning and Budgeting shall provide the following information to support justification of the selected evidence designation.

- (i) A summary of the best available research evidence about the program or practice;
- (ii) How the best available research evidence is connected to the budget request or budget amendment request;
- (iii) Plans to evaluate the program or practice to build evidence regarding its effectiveness.

(c) If subsection (4)(a) of this section applies, as part of their responsibilities as described in Colorado Revised Statutes, 2-3-204, the Joint Budget Committee staff shall review the summary of the best available research evidence provided in subsection (4)(b) and other relevant evidence, as needed, and include the evidence designation as part of any recommendation it makes regarding a budget request or budget amendment request.

Section 2. In Colorado Revised Statutes, 2-3-203, add (4) as follows:

2-3-203. Powers and duties of the joint budget committee. (4) The Joint Budget Committee shall consider, as one of many factors, the evidence designation provided in section 2-3-210 (4) when determining the appropriate level of funding for a program or practice.

Section 3. In Colorado Revised Statutes, 2-3-204, add (3) as follows:

2-3-204. Staff director, assistants, and consultants. (3) The staff director shall appoint additional staff as necessary to provide the designation and rationale as required by section 2-3-210 (4).

Section 4. Act subject to petition - effective date. This act takes effect at 12:01 a.m. on the day following the expiration of the ninety-day period after final adjournment of the general assembly, except that, if a referendum petition is filed pursuant to section 1(3) of article V of the state constitution against this act or an item, section, or part of this act within such period, then the act, item, section, or part will not take effect unless approved by the people at the general election to be held in November 2024 and, in such case, will take effect on the date of the official declaration of the vote thereon by the governor.