

LEA Use of Evidence in Budget Decisions

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Introduction

Each year schools and districts spend a considerable amount of time and effort allocating their annual budgets (AASA, n.d., Peterson, 1991).

While the use of evidence by education agencies has been widely studied (e.g., Penuel et al, 2016), its use to inform budget decisions specifically does not appear to have been investigated formally.

One obstacle to the use of evidence to inform budget decisions may be that, although 80% of school district funds are spent on personnel (McFarland et al., 2017), few research studies attempt to estimate the impact of people per se on student achievement. Furthermore, evaluating research evidence requires capacity and infrastructure beyond that available to many educational agencies (Honig & Coburn, 2008).

Methods

Research Question:

What type of evidence is used by school and district decision-makers to support budget decisions?

District office personnel from a large, southern school district provided the research team with 55 budget request proposals submitted by 42 unique cost center heads (school principals, district office division chiefs, and program directors) between 2015 and 2018.

We conducted a document analysis (Bowen, 2009; Gitomer & Crouse, 2019) of PDF downloads of these budget request proposals, specifically seeking evidence to support the effectiveness of the proposed investment at improving educational outcomes.

47 proposals requested funds for personnel only; 3 proposals requested funds for non-personnel items only: tuition and textbooks, stipends, or professional development. 5 proposals requested funds for both personnel and non-personnel items.

Three researchers independently reviewed the application forms for each budget request proposal and recorded references to evidence supporting the effectiveness of the proposed strategy at improving educational outcomes.

Internal vs. external evidence

Following Hollands and Escueta's (2019) definition of internal vs. external research, we assigned an initial rating to each item to indicate the type of evidence provided:

- 0 = no evidence
- 1 = internal evidence (e.g., local data)
- 2 = external evidence (e.g., journal articles).

Type of publication and study design

Subsequently, we reviewed each item cited as external evidence and categorized it by type of publication and by study design using categories similar to those used by Davidson, Farrell and Penuel (2018) and by Farley-Ripple and Jones (2015).

Did evidence support the theory of change?

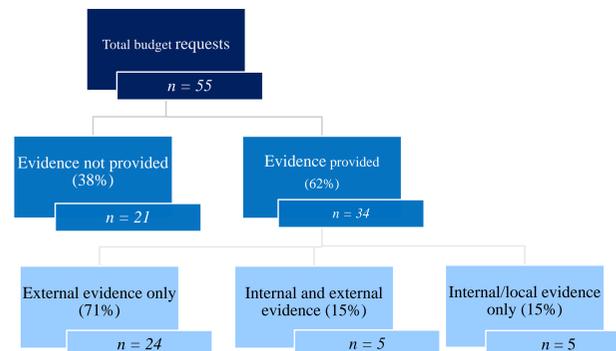
We also assessed whether each piece of internal or external evidence cited appeared to support the theory of change (TOC) implied in the budget request. We awarded ratings of yes/no/partially/unclear.

Discrepancies among raters were addressed by a joint review of the evidence item and a group discussion. Final agreement rates were 95% or above across each set of ratings.

Results

1) Number of requests for which internal and/or external evidence was provided to support effectiveness of the proposed strategy

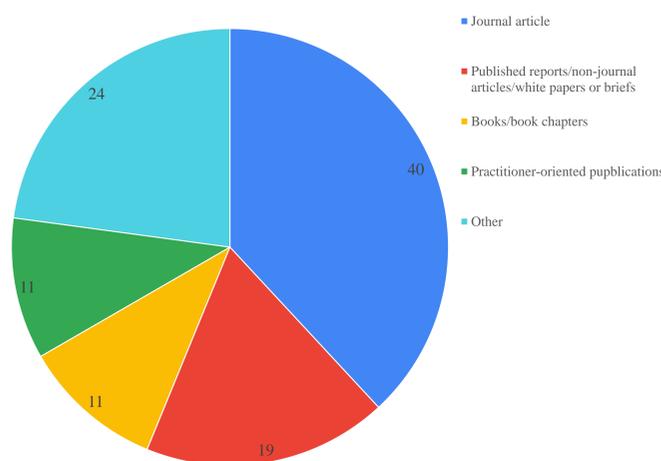
Thirty-four (62%) of the 55 requests cited at least one piece of external and/or internal evidence that supported the effectiveness of the proposed strategy for which funding was being sought. Twenty-nine (53%) cited at least one piece of supporting external evidence.



2) Types of external publication cited as evidence

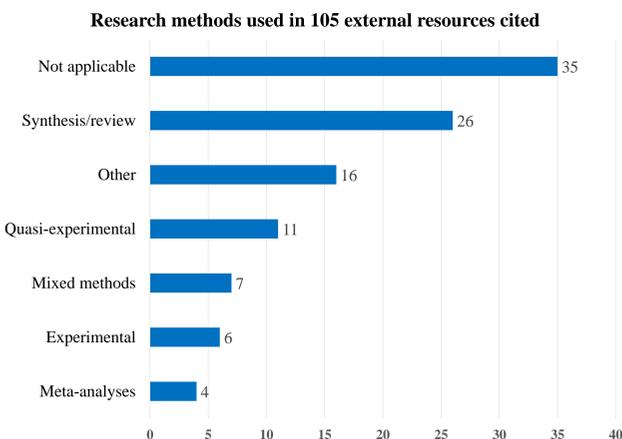
Across the 29 budget requests citing external evidence to support the proposed strategy, we counted 105 publications and other sources of information. The median number of pieces of external evidence provided was 2.5; the range was 1 - 24.

Type of publication cited as evidence to support budget request



3) Research methods used in the 105 external sources of evidence

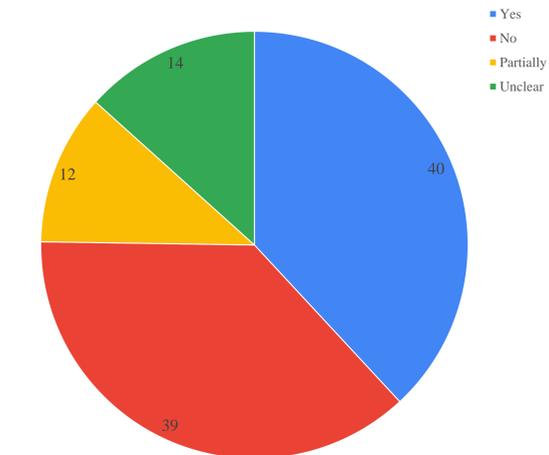
Syntheses/reviews were cited most frequently, followed by quasi-experimental studies. For 1/3 of the items cited as evidence to support the strategy proposed by the budget request, no research method could be identified.



4) Whether the evidence supported the theory of change (TOC)

Less than 1/3 of the 33 internal documents supported the TOC. Half of the 105 external sources cited supported or partially supported the TOC implicit in the budget request. 38% of the 105 items did not support the proposal's TOC, with one item providing evidence against the proposed strategy!

Did the external documents support the budget request's TOC?



References

- AASA. (n.d.). *School budgets 101*. American Association of School Administrators. Retrieved from https://www.aasa.org/uploadedFiles/Policy_and_Advocacy/files/SchoolBudgetBriefFINAL.pdf
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40.
- Davidson, K. L., Penuel, W. R., & Farrell, C. C. (2018). What counts as research evidence? How educational leaders' reports of the research they use compare to ESSA guidelines. Abstract from 2018 Society for Research on Educational Effectiveness Conference, Washington DC.
- Farley-Ripple, E., & Jones, A. R. (2015). Educational contracting and the translation of research into practice: The case of data coach vendors in Delaware. *International Journal of Education Policy and Leadership*, 10(2), 1-18.
- Gitomer, D. H., & Crouse, K. (2019). *Studying the use of research evidence: A review of methods*. A William T. Grant Foundation Monograph. Retrieved from <http://wtgrantfoundation.org/library/uploads/2019/02/A-Review-of-Methods-FINAL003.pdf>
- Hollands, F.M., & Escueta, M. (2019). How research informs educational technology decision-making in higher education: the role of external research versus internal research. *Educational Technology Research & Development*. DOI: 10.1007/s11423-019-09678-z
- Honig, M. I., & Coburn, C. (2008). Evidence-based decision making in school district central offices: Toward a policy and research agenda. *Educational Policy*, 22(4), 578-608.
- McFarland, J., Hussar, B., de Brey, C., Snyder, T., Wang, X., Wilkinson-Flicker, S., Gebrekristos, S., Zhang, J., Rathbun, A., Barmer, A., Bullock Mann, F., & Hinz, S. (2017). *The condition of education 2017* (NCES 2017-144). U.S. Department of Education, Washington, DC: National Center for Education Statistics. Retrieved from <https://nces.ed.gov/pubsearch/pubinfo.asp?pubid=2017144>.
- Penuel, W.R., Briggs, D.C., Davidson, K.L., Herlihy, C., Sherer, D., Hill, H.C., Farrell, C.C., & Allen, A-R. (2016). *Findings from a national survey of research use among school and district leaders* (Technical Report No. 1). Boulder, CO: National Center for Research in Policy and Practice.
- Peterson, D. (1991). School-based budgeting. *ERIC Digest*, 64, 1-7. Retrieved from <https://files.eric.ed.gov/fulltext/ED336865.pdf>

Conclusions

When submitting budget requests, school and district administrators referred to evidence supporting the effectiveness of the proposed strategy for approximately 3 out of 5 of their requests, regardless of whether such evidence was available.

Evidence cited was most often journal articles related to the proposed strategy but also included items such as information brochures and web sites, suggesting a wide interpretation of what counts as evidence.

Similarly, the rigor of evidence cited varied widely from experimental studies to information that was not derived from any identifiable study or research method.

Less than 40% of the external resources cited appeared to support the budget request's implicit theory of change. This raises the question of whether the evidence actually influenced the decision or was an afterthought.

Recommendations

- 1) More research is needed on the effectiveness of education personnel and the specific practices in which they engage. This could contribute to a database of interventions in which schools/districts most commonly invest, associated evidence of effectiveness, summary ratings, and implementation details to help cost center heads and district office approvers make better decisions about where to invest funds.
- 2) Future research should investigate whether budget requests that fund strategies supported by stronger theories of change and evidence of effectiveness result in better student or staff outcomes than those supported by weak or no evidence.
- 3) District office cabinet members who approve budget requests should require a TOC and clarify the type of evidence, whether local data or external research, they expect to see justifying budget allocations. They should question any request that is not supported by such evidence or where the evidence is not aligned with the TOC.
- 4) Districts should offer training to administrators in:
 - Developing logic models/theories of change to support their budget requests with appropriate student or staff outcomes and tangible metrics.
 - Identifying evidence-based strategies to address their student or staff needs, either using local data or external research.
 - Determining what counts as rigorous evidence and assessing the strength of an evidence base.

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Further information

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