Call for Education Data Scientist Applications to Attend the Education Indicator Data Collaborative Workshop

Smith Learning Theater, Teachers College, Columbia University, New York City June 26th and 27th, 2025

About the Workshop:

This two-day, hands-on workshop brings together education data scientists and K-12 practitioners, including teachers, principals, and district administrators, to design and test data solutions for schools and districts centered on public open access opportunity and resource data linked to outcomes. Participants will collaborate to develop actionable, data visualizations and dashboards that support decision-making around key educational indicators.

Background:

Currently across K-12 education, schools and districts have invested in a variety of Instructional Data Warehouses (IDW) and School Information Systems (SIS) in an effort to provide actionable information for educators to inform evidence-based practice and decision-making. Concurrently, organizations such as the National Academy of Sciences, Engineering, and Medicine (NASM) have called for greater use and alignment of K-12 public state and federal open data with local district data systems, including the NASEM 16 equity indicators aimed in part to help schools move beyond an exclusive focus on outcomes (such as test scores and graduation rates) to also include student access to a broad range of opportunities and resources, such as effective teaching, breath of curriculum, and rigorous coursework, among others [1,2]. Yet, across research and practice, much work remains to understand the types of data to display that are most helpful to teacher, principal, and central office decision making, as well as what types of data dashboards, visualizations, and UX best serve the needs of schooling communities in their efforts to bring NASM-aligned public data resources closer to local school and district improvement efforts [3-5].

This work requires insights from both educators in schools as well as the current work of education data scientists working at the intersection of research and practice [6-9]. As part of a larger Wallace Foundation funded project [10], we are gathering educators and education data scientists together for an exciting interactive two-day event to learn together through a datasprint design-based collaborative workshop [6]. The goal of the event is to work to understand the needs of educators around education data and data dashboards, and then iteratively build collaborative prototype visualizations and code together to help address educator data use needs across the system. The event will be held on June 26 and 27th, 2025, at Teachers College, Columbia University's Smith Learning Theater in New York City [11].

Who Should Apply:

We are requesting applications to attend the event from **education data scientists** as a *Data Collaborative Fellow*. If accepted, over the two days of the workshop you will be matched into a datasprint team with educators (teachers, principals, superintendents) as well as other education data scientists. Teams will first encounter and discuss a variety of current and possible design ideas through a structured set of discussions and education data science and data use examples, focusing on open access public state data aligned to the NASEM 16 indicators using open access code in R [5], and then will work together to create and design visualizations and code using collaborative

design-based data visualization protocols [6]. Space is limited, so we are requesting applications to attend as a data scientist participant. To apply to attend the event, please submit a CV/resume and an application letter of 1,000-2,000 words that includes the following (word limit excludes any tables, figures, or references):

- Applicant name, job title, affiliation, and contact information.
- Experience as an education data scientist, including collaborations with educators around data use and/or proficiency in open-source coding environments such as R or Python.
- A discussion of the current issues in the field of education data science, and equity-centered data practices, including successes and challenges at the intersection of school decision making, evidence-based improvement cycles, data analytics, and data visualization for improvement.
- An example of how you have addressed an education data science issue in your work, with prototype or final data visualization or analysis, linked to a discussion of impact (or potential impact) on the organization.
- A discussion of any of the current central questions in education data science [6-8] of data privacy, fairness, ethics, algorithmic fairness, or data management among others.

As an invited participant, accepted applicants are expected to contribute a chapter as an author to the proceedings from the meeting workshop, including publication of an essay, or research and application paper brief (3-5 pages) on the datasprint outcomes, and/or participant perspectives on data use, data visualization, and data science in education research and practice. Results from the workshop will be provided to participants for additional data analysis for the proceedings contribution. The chapter is intended to build from and extend the use of NASM-aligned public open access equity datasets using R or Python data visualizations and dashboards.

Accepted applicants will be provided funding for travel, hotel, and meals to attend the event.

By applying, please note that you are agreeing to the following:

- Have the work of teams from the workshop be made publicly accessible online, including code and data visualizations.
- Agree to be audio and video recorded within the Learning Theater space for archival and research purposes.
- Participate in pre- and post-event surveys.
- Agree, that if accepted, you will pledge to attend the event in person, which will be held between 9:00am-5:00pm on June 26 and 27th, 2025.

We aim to accept about 8-10 applicants, depending on proposal topics, identified datasprint team needs, and event space restrictions. We will inform applicants by early March 2025 of the status of their application. The **deadline for submissions is Friday February 14 at 5pm EST**. Please email application submission materials in PDF form and CV/resume to Alex J. Bowers (Bowers@tc.edu).

Join Us in Making a Difference!

Help shape the future of data tools in education! We look forward to your ideas and collaboration in this transformative event at Teachers College, Columbia University.

References:

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- 9. Bowers, A.J., Bang, A., Pan, Y., Graves, K.E. (2019) Education Leadership Data Analytics (ELDA): A White Paper Report on the 2018 ELDA Summit. Teachers College, Columbia University: New York, NY. https://doi.org/10.7916/d8-31a0-pt97
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- 11. Teachers College Columbia University Smith Learning Theater: https://www.tc.columbia.edu/digitalfuturesinstitute/smith-learning-theater/