

# AERA 2024 - PD24-07

## Using R and Generative AI for NAEP Data Analysis



EdSurvey Team: Sinan Yavuz, Ting Zhang, Paul Bailey, Blue Webb & Emmanuel Sikali

Sat, April 13<sup>th</sup>

7:45 am to 11:45 am

Pennsylvania Convention Center

Floor: Level 100, Room 107B

Philadelphia, PA

### Agenda

Presenter	Time	Session
Emmanuel	7:45–7:55 a.m.	Course Overview, Introductions
Ting	7:55–8:40 a.m.	<b>Introduction to Large-scale Assessments</b> <ul style="list-style-type: none"><li>• Complex sampling design</li><li>• Plausible values</li></ul>
	8:40–8:45 a.m.	5 mins Break
Blue	8:45–9:05 a.m.	<b>Introduction to Generative AI Chatbots</b> <ul style="list-style-type: none"><li>• Background</li><li>• Tips on how to use it</li></ul>
	9:05–9:10 a.m.	5 mins Break
Sinan	9:10–9:25 a.m.	Intro to R and Why EdSurvey

Presenter	Time	Session
Paul	9:25–9:55 a.m.	<b>The R “EdSurvey” package functionality intro</b> <ul style="list-style-type: none"> <li>• Data Processing (20 mins)</li> <li>• Data manipulation (with cheat sheet) (10 mins)</li> </ul>
	9:55–10:00 a.m.	5 mins Break
Sinan	10:00–10:20 a.m.	<b>The R “EdSurvey” package functionality intro</b> <ul style="list-style-type: none"> <li>• Summary statistics and Cross tabulation</li> <li>• Achievement levels and percentiles (ebook only)</li> </ul>
Ting	10:20–10:40 a.m.	<ul style="list-style-type: none"> <li>• Gap Analyses</li> </ul>
Blue	10:40–11:00 a.m.	<ul style="list-style-type: none"> <li>• Linear regression</li> </ul>
Sinan	11:00–11:10 a.m.	<ul style="list-style-type: none"> <li>• Logistic regression</li> </ul>
	11:10–11:15 a.m.	5 mins Break
Hands on	11:15–11:35 a.m.	Hands-on practice and Q&A
Emmanuel	11:35–11:45 a.m.	Wrap up and Q&A