



Analyzing NAEP and TIMSS Data Using R: 2021 EdSurvey Large-Scale Data Analysis Training Series

Four virtual sessions on each Wednesday of October 2021 | 12:00pm-2:30pm ET

Join each session virtually on Zoom

Joining link through Wednesday October, 20th:

Join Virtually: <https://air-org.zoom.us/j/97593609156?pwd=Q09hR2tKZEh0U3ExeExjVldlS0lDQT09>

Meeting ID: 975 9360 9156

Passcode: EdSur7ey!&

Joining link for Wednesday, October 27th:

Join Zoom Meeting: <https://air-org.zoom.us/j/93083777543?pwd=c1BTZlpBSTZ2NTNPDGJGOFJsN3hscz09>

Meeting ID: 930 8377 7543

Passcode: EdSur7ey!&

Download course materials from repository

<https://github.com/American-Institutes-for-Research/2021-Oct-EdSurvey-Training-Series>

Session 1: Wednesday, October 6, 2021

12:00-12:30	Welcome remarks -Emmanuel Sikali Introductions Review of agenda, Overview of goals and expected outcomes
12:30-1:15	Introduction to Large-Scale Assessments (with NAEP and TIMSS as examples)- Martin Hooper
1:15-1:25	Break
1:25-1:55	Sampling design, weights and variance estimation— Paul Bailey

1:55-2:00	Break
2:00-2:30	Psychometric Model and Analysis- Ting Zhang
Homework	Install R, Rstudio, install EdSurvey, download TIMSS 2011, 2015 and 2019

Session 2: Wednesday, October 13, 2021

12:00-12:15	Q&A from last session
	Intro to R EdSurvey package functionality
12:15-12:45	Why R and why EdSurvey – Michael Lee Get to know the R environment
12:45-1:15	Data processing—Thomas Fink Meet your data-sdf, searchSDF, levelSDF, showCodebook, summary2
1:15-1:45	Data manipulation—Eric Buehler
1:45-2:15	Data visualization – Eric Buehler
2:15-2:30	Hands-on practice with NAEP/TIMSS data

Session 3: Wednesday, October 20, 2021

12:00-12:15	Q&A from last session
12:15-12:45	Summary statistics- edsurveyTable, etc – Eric Buehler
12:45-1:15	Linear regression – Eric Buehler & Paul Bailey
1:15-1:25	Break
1:25-1:35	Other types of analyses available in EdSurvey – Paul Bailey
1:35-2:05	Percentile analysis & quantile regression – Charles Blankenship
2:05-2:15	Logistic regression – Sinan Yavuz
2:15-2:30	Hands-on practice with NAEP/TIMSS data

Session 4: Wednesday, October 27, 2021

12:00-12:15	Q&A from last session
12:15-12:45	Achievement-level analysis – Sinan Yavuz
12: 45-12:50	Break
12:50-1:40	Gap analysis – Ting Zhang
1:40-1:45	Break
1:45-2:00	Doing your own analyses using NAEP/TIMSS data
2:00-2:30	How to get NAEP Restricted-Use Data; NAEP funding streams and opportunities - Emmanuel Sikali
	Challenges and opportunities in areas in NAEP that NCES has identified as needing innovative research and applications – Emmanuel Sikali
	Concluding Remarks – Emmanuel Sikali