# Next steps

## Several more vignettes (tutorials) on the midfieldr website



midfieldr `0.1.0.9002`  🏠  Getting started  Vignettes ▾  Papers/Talks ▾  Refe

Identifying programs by CIP codes
Selecting groups of programs
Imputing starting majors for FYE students
Computing graduation rate
Computing stickiness
Multiway data, graphs, and tables

# midfieldr

A package for investigating student record data provid
participating in the MIDFIELD project.

Analytical tools for research in student pathways are generally scarce. midfieldr provides an entry to this type of intersectional research for anyone with basic proficiency in R and familiarity with packages from the tidyverse.
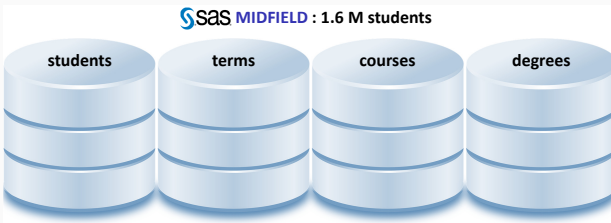
Talk to a member of the MIDFIELD team.

Names and emails on the website.

# Talk to a member of the MIDFIELD team



## About MIDFIELD

Source: `vignettes/pages/about_midfield.Rmd`

MIDFIELD is the acronym for the Multiple-Institution Database for Investigating Engineering Longitudinal Development.

Longitudinal studies using MIDFIELD are not limited to Engineering—the database includes *all* student records from member institutions.

## Who we are

| | | |
|---|---|---|
| Matthew Ohland | Principal Investigator/Director | ohland@purdue.edu |
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Who we are
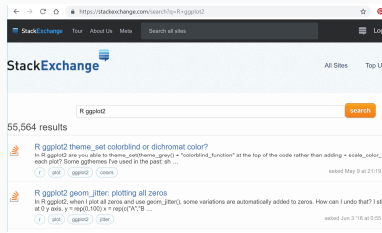
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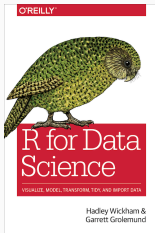
Hadley Wickham
Garrett Grolemund
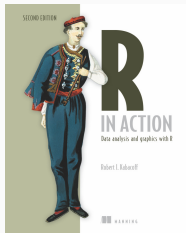


Robert Kabacoff



StackExchange.com
Or just google it
Your problem may already be solved
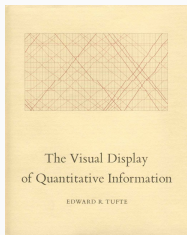
Edward Tufte
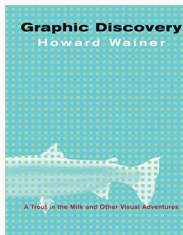


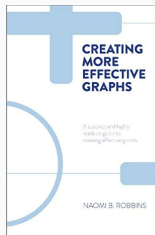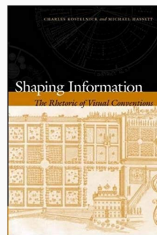Howard Wainer



Naomi Robbins



Charles Kostelnick
Michael Hassett

# References

Doumont, Jean-luc. 2009. *Trees, maps, and theorems: Effective communication for rational minds.* 2nd ed. Kraainem, Belgium: Principiae.

Evergreen, Stephanie D. H. 2017. *Effective Data Visualization: The Right Chart for the Right Data.* Sage.

Ihaka, Ross. 2007. "Statistics 787 Lecture slides."

Kabacoff, Robert. 2015. *R in Action: Data Analysis and Graphics with R, 2/e.* Manning Publications Co.

Kostelnick, Charles, and Michael Hassett. 2003. *Shaping Information: The Rhetoric of Visual Conventions.* Southern Illinois University.

Robbins, Naomi. 2013. *Creating More Effective Graphs.* Chart House.

Tufte, Edward. 1983. *The Visual Display of Quantitative Information.* Graphics Press.

Wainer, Howard. 1997. *Visual Revelations: Graphical Tales of Fate and Deception From Napoleon Bonaparte To Ross Perot.* Copernicus.

Wickham, Hadley, and Garrett Grolemund. 2016. *R for Data Science.* Sebastopol, CA: O'Reilly Media, Inc.

# Accessing MIDFIELD:
# A Workshop for R beginners

FIE 2019

Wednesday October 16, 2019 5 – 8 pm
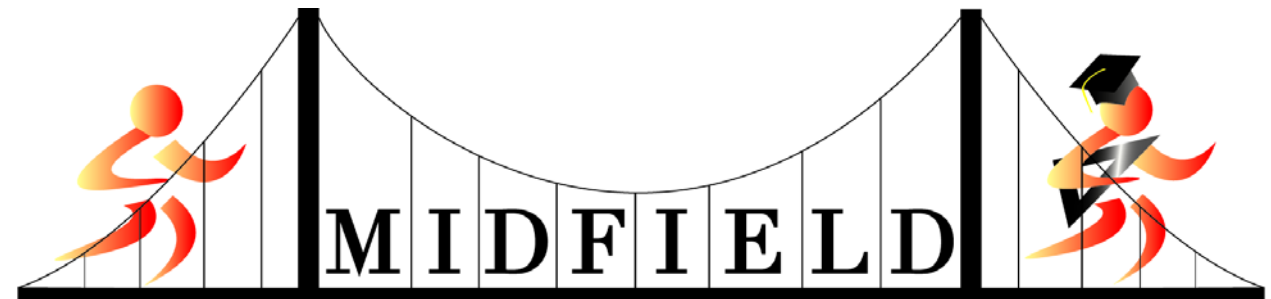


Multiple-Institution Database For Investigating Engineering Longitudinal Development

# Accessing MIDFIELD

- Proportionately sampled dataset *midfielddata* on github
- *midfieldr* package available for R to support analysis
  - https://midfieldr.github.io/midfieldr/
  - Getting Started tutorial, vignettes demonstrating special techniques/functions, data schema
- Full MIDFIELD database available from Russell Long, confidentiality agreement required (protecting institutional identity)

# Joining MIDFIELD

- University-level administrators (Provost, Institutional Research, Registrar) sign MOU consenting to release de-identified student data

- Institutional Research, Registrar, or data analysts working for the College of Engineering provide data in native format

- Sign agreement to archive the data for research access

- Submit undergraduate catalogs (pref. in electronic form).

- Acquire IRB approval at your institution for your own research.

# Find Out More

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