

Richard M. Heiberger
Professor Emeritus of Statistics
Temple University, Philadelphia, PA
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Education

Ph.D., **Harvard University** (1972) Statistics
M.A., **Harvard University** (1968) Statistics
A.B., **Oberlin College** (1967) Mathematics
A.B., **The Central High School of Philadelphia** (1963)

Academic Positions

Temple University, Department of Statistics

Professor Emeritus 2012–
Professor 1993–2012
Associate Professor 1981–1993

Temple University, Office of the Provost

Acting Associate Vice Provost (1989–1990).
Director of DARS installation (1989–1994).
DARS (Degree Audit Reporting System) matches students courses
to the requirements for their declared major and minor.
Faculty Mentor for the Future of Instructional Technology, 2010–2011.

University of Pennsylvania

Associate Professor of Biostatistics 1980–1981
Assistant Professor of Biostatistics 1979–1980
Assistant Professor of Statistics 1973–1979

Iowa State University, Department of Statistics

Assistant Professor 1971–1973

Associations and Honors

American Statistical Association

Fellow of the American Statistical Association
Chair of the Section on Statistical Computing 2011

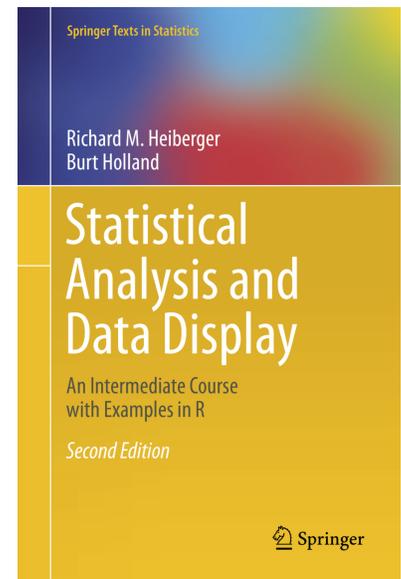
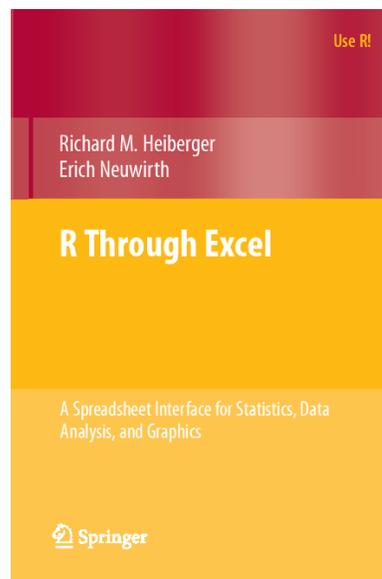
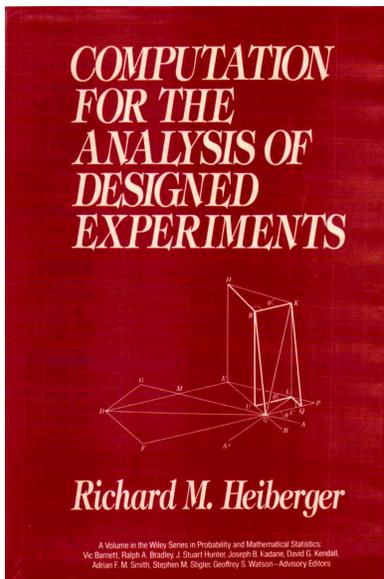
Research Leaves

GlaxoSmithKline, Philadelphia, PA (2003–2005, 2009).
Consultant on Statistics and Computation
AT&T Bell Laboratories, Murray Hill, NJ (1987–1989)
Participant in design of the `lm` and `aov` functions in S and R.

Data Analysis, Data Visualization, Software Systems

Books

- *Computation for the Analysis of Designed Experiments*, Wiley 1989.
<http://www.wiley.com/WileyCDA/WileyTitle/productCd-0471827355.html>
- *R through Excel* (with Erich Neuwirth), Springer 2009.
<http://www.springer.com/us/book/9781441900517>
R through Excel has been translated into Japanese.
- *Statistical Analysis and Data Display* (with Burt Holland), Springer 2015 (second edition).
<http://www.springer.com/us/book/9781493921218>



Software

- On research leave at Bell Labs (1987–1988), I participated in the design of the statistical language R.
- I maintain three R packages that are distributed on CRAN:
 - HH: software for my book *Statistical Analysis and Data Display*
<https://CRAN.R-project.org/package=HH>
 - RcmdrPlugin.HH: interactive access to the HH package
<https://CRAN.R-project.org/package=RcmdrPlugin.HH>
 - microplot: Microplots (sparklines) are small plots placed within cells of a tabular array
<https://CRAN.R-project.org/package=microplot>

I am a coauthor of or contributor to additional CRAN packages: `car`, `twoway`, `abind`, `RcmdrPlugin.mosaic`, `Rmpfr`, `Rcmdr`, `fortunes`, `multcomp`.

- I am a member of the core team that designed and maintains ESS (Emacs Speaks Statistics), a powerful editing system and user interface to R and other software. <http://ess.r-project.org>

Consulting

- Subcontract with NORC for **US Census Bureau** project “Data Visualization Research”. 2012–2014.
- Subcontract with ICF International for **US Department of Environmental Protection** project on “Exploration of Data Visualization”. May 2012–July 2012.
- Heiberger, R. (Principal), “User friendly interface for supply modeling tools,” Sponsored by **Glaxo-SmithKline** (2008–2010).

Short Courses

- **UseR! 2012** R Users Conference, Nashville, TN (June, 2012)
“Tutorial on ESS”, Short Course.
- **Joint Statistical Meetings** Toronto 2004, Minneapolis 2005, and other venues.
“Statistical Analysis and Data Display”, Short Course.
- **American Statistical Association Conference on Statistical Practice**
2014: “Structured Sets of Graphs”. Tampa, Florida.
2015: “Design of Not-Simple Graphs”. Half-Day Course. New Orleans, Louisiana.
2016: “Design of Multi-Panel Graphs”. San Diego, California.
- **Deming Conference on Applied Statistics, Atlantic City**
American Society for Quality Control and American Statistical Association
1990: “Computation for the Analysis of Designed Experiments”
2005: “Statistical Analysis and Data Display”
2016: “Statistical Analysis and Data Display, Second Edition”

Selected Presentations

- Richard M. Heiberger, July 2015 “Computational Precision and Floating-Point Arithmetic”. **UserR! 2015**, Aalborg, Denmark.
- Richard M. Heiberger, Edward J. Mulrow, Naomi B. Robbins, August 2013, “Visualizing Census Tables”, **Joint Statistics Meetings**, Montreal, Canada.
- Richard M. Heiberger, July 2013 “Design of graphics with lattice and mosaic.” **UserR! 2013**, Albacete, Spain.
- **1st Annual FDA/DIA Statistics Forum.**
FDA/DIA—Federal Drug Agency/ Drug Information Association.
Heiberger, Richard M. (2007). “Graphical Approaches to the Analysis of Safety Data from Clinical Trials”. Bethesda, MD, March 7, 2007

Recent Papers

- Richard M. Heiberger (2023). The Non-Religious Component of the “Jewish Enterprise”. *Contemporary Jewry*, 43: 519–550. <https://doi.org/10.1007/s12397-023-09527-5>.
view-only: <https://rdcu.be/duPKY>
This paper provides a graphical and descriptive analysis of questions from the Pew Research Center report “Jewish Americans in 2020” based on their national survey conducted in 2020.
- Richard M. Heiberger (2022). Capturing the Changing Nature of the “Jewish Enterprise”. *Contemporary Jewry*, 42: 385–411.. <https://doi.org/10.1007/12397-022-09456-9>.
view-only: <https://rdcu.be/c1zKq>
This paper provides a graphical and descriptive analysis of questions from the Pew Research Center report “A Portrait of Jewish Americans” based on their national survey conducted in 2013.
- “Design of Diverging Stacked Bar Charts for Likert Scales and Other Applications”, with Naomi Robbins (2014), *Journal of Statistical Software* <http://www.jstatsoft.org/v57/i05>.
- The graphical technique for displaying Adverse Event data that we published during my research leave at GlaxoSmithKline in 2003–2004, and also available in the HH package, is now standard in the pharmaceutical industry. (Ohad Amit, Richard M. Heiberger, and Peter W. Lane. (2008) “Graphical Approaches to the Analysis of Safety Data from Clinical Trials”. *Pharmaceutical Statistics*, 7, 1, 20–35. <http://www3.interscience.wiley.com/journal/114129388/abstract>)
- Richard M. Heiberger and Burt Holland (2006), “Mean–Mean Multiple Comparison Displays for Families of Linear Contrasts”, *Journal of Computational and Graphical Statistics* 15, 4, 937–955. <http://www.tandfonline.com/doi/abs/10.1198/106186006X160500>
- Heiberger, R., Robbins, N. B. (2011). Alternative to Charles Blow’s Figure in “Newt’s War on Poor Children”.
<http://www.forbes.com/sites/naomirobbins/2011/12/20/alternative-to-charles-blows-figure-in-newts-w>

Administration

- In 1989–1990 I was Acting Associate Vice Provost at Temple University, with primary responsibility (1989–1994) for installing the DARS (Degree Audit Reporting System) into the University’s computers. The DARS system matches students’ courses to the requirements for their declared major and minor.
- I was a member of the Statistics Graduate Committee and chaired it 1983–1987.
- I was a member of the Statistics Undergraduate Committee and chaired it 1990–1995.
- The Statistics Department added a new required course Stat 8102 Statistical Methods III to the MS/PhD in Statistics. I designed the curriculum, and offered the course for the first time during Fall 2010.
- We added a new undergraduate minor course Statistics 2521 Data Analysis and Statistical Computing. I designed and offered the course for the first time in Fall 2011.

Jewish Studies

Organizations

P'nai Or Philadelphia (Jewish Renewal) <https://pnaior-phila.org/>
Co-chair of the Steering Council (2012–2022).

National Havurah Committee <https://havurah.org/>
Member of the Board and Treasurer (2003–2008).

Jewish Federation of Greater Philadelphia
Community Portrait 2019
Technical Advisory Committee (2019–)

Publications

Kaddish (2005). Euphonic English Translation that can be read simultaneously with the Aramaic.
<http://resources.havurah.org/2010/01/english-kaddish/>

Akedah (2017). <http://www.tikkun.org/tikkundaily/2017/08/24/akedah/>

Hagar and Ishmael (Rosh Hashanah D'var Torah Day 1, 5777/2016).
<http://pnaior-phila.org/wp-content/uploads/2016/10/Dvar-Torah-Rosh-HaShanah-5777-Rich-Heiberger-Hagar.pdf>

Einstein and the Two Goats (Yom Kippur D'var Torah, 5779/2018).
<http://pnaior-phila.org/wp-content/uploads/2018/10/Rich-Heiberger-Einstein-and-the-Two-Goats-YK-5779.pdf>

Preparation for a Virtual Yom Kippur (August 5, 2020).
<https://havurah.org/wp-content/uploads/2020/08/Preparation-for-a-Virtual-Yom-Kippur.pdf>

Courses

I have taken 12 courses, designed for Rabbinical students, in the Aleph Ordination Program (Jewish Renewal) <https://aleph.org/ordinations>:

- SP16: Jewish Traditions of Sacred Time
- F16: Transformative Themes in Reb Zalman's Writings
- SP17: Foundations of Jewish Philosophy and Theology
- F17: Modern Jewish Thought
- F17: Yesh Sod L'Dvar: Themes of Jewish Mystical Tradition
- SP18: History of Hasidism
- SP18: Introduction to Hasidut
- SW18: Judaism Without Holocaust or Halakha (Thiede)
- SW18: Shir HaShirim in the Key of PaRDes (Ginsburg)
- KL18: Animals as Spiritual Teachers (Duhan-Kaplan)
- F18: Jewish Emancipation Period
- SP19: Jewish Historical Consciousness: Around the World to Sinai

Calling

About eight years ago, I got the calling (yes, it came from on high and was unrefusable) for my next major activity, writing a modern mythology. It started out intending to be a science-based origins story that contained a value system. I have done much reading (history, mythology, theology, biology, geology, fiction, psychology, philosophy, anthropology, creation stories from around the world (usually children's versions), fairy tales, folk tales), participated in several types of workshops, and taken several rabbinical classes.

The project has morphed several times, and stabilized in 2019 into an attempt to understand the structure of Jewish Communities in the United States. I am a member of the Technical Advisory Committee of the "Greater Philadelphia 2019 Community Portrait" sponsored by the Jewish Federation of Greater Philadelphia. <https://communityportrait.org/s/2019-Community-Portrait-Final-Report.pdf> I have two journal articles in *Contemporary Jewry* reanalyzing the data of the Pew Research Center's studies of the Jewish American population. I presented a paper at the meetings of the Association for Jewish Studies and the Association for the Social Scientific Study of Jewry in Boston in December 2022.