

Summary

Data analyst and quantitatively oriented researcher with 6 years of experience, specializing in health and decision-making. Programmer with 13 years of experience, including data management, system administration, and web development.

Education

Stony Brook University (Stony Brook, NY)

Doctor of Philosophy in experimental psychology (advisor: Christian Luhmann) 2016

Master of Arts in psychology 2013

Allegheny College (Meadville, PA)

Bachelor of Science, psychology and mathematics double major 2011

Valedictorian (class rank 1/589, GPA 4.0/4, *summa cum laude*)

Research

My research interests lie in social psychology, decision-making, health (particularly alcohol use), and sexuality. I use data-analytic methods from both statistics and machine learning, with an emphasis on predictive modeling. I'm also interested in open science: I make data, code, research notes, and working papers freely available on my website, Arfer.net.

Representative current projects

Rotheram-Borus, M. J., **Arfer, K. B.**, Christodoulou, J., & Tomlinson, M. *Child health outcomes from mothers' drinking and a mentor-mother intervention in South Africa.*

Arfer, K. B., O'Connor, M. J., Tomlinson, M., & Rotheram-Borus, M. J. *South African mothers' immediate and 5-year retrospective reports of drinking alcohol during pregnancy.*

Quinn, B., **Arfer, K. B.**, Gorbach, P., & Shoptaw, S. *Is there a dose-response relationship between alcohol and other substance use, involvement in HIV risk behaviors, and specific biomarkers among a prospective cohort of Los Angeles-based minority men who have sex with men?*

Peer-reviewed journal articles

Arfer, K. B., & Jones, J. J. (accepted). American political-party affiliation as a predictor of usage of an adultery website. *Archives of Sexual Behavior.*

Arfer, K. B., Tomlinson, M., Mayekiso, A., Bantjes, J., & Rotheram-Borus, M. J. (2018). Criterion validity of self-reports of alcohol, cannabis, and methamphetamine use among young men in Cape Town, South Africa. *International Journal of Mental Health and Addiction*, 16, 45–52. doi:10.1007/s11469-017-9769-4

Zingmond, D., **Arfer, K. B.**, Gildner, J., & Leibowitz, A. (2017). The cost of comorbidities in treatment for HIV/AIDS in California. *PLOS ONE*. doi:10.1371/journal.pone.0189392

Ethridge, P., Kujawa, A., Dirks, M. A., **Arfer, K. B.**, Kessel, E. M., Klein, D. N., & Weinberg, A. (2017). Neural responses to social and monetary reward in early adolescence and emerging adulthood. *Psychophysiology*, 54, 1786–1799. doi:10.1111/psyp.12957

- Rodriguez-Seijas, C., **Arfer, K. B.**, Thompson, R. G., Jr., Hasin, D. S., & Eaton, N. R. (2017). Sex-related substance use and the externalizing spectrum. *Drug and Alcohol Dependence, 174*, 39–46. doi:10.1016/j.drugalcdep.2017.01.008
- Arfer, K. B.**, & Luhmann, C. C. (2017). Time-preference tests fail to predict behavior related to self-control. *Frontiers in Psychology, 8*. doi:10.3389/fpsyg.2017.00150
- Arfer, K. B.**, Bixter, M. T., & Luhmann, C. C. (2015). Reputational concerns, not altruism, motivate restraint when gambling with other people's money. *Frontiers in Psychology, 6*. doi:10.3389/fpsyg.2015.00848
- Rachlin, H., **Arfer, K. B.**, Safin, V., & Yen, M. (2015). The amount effect and marginal value. *Journal of the Experimental Analysis of Behavior, 104*, 1–6. doi:10.1002/jeab.158
- Safin, V., **Arfer, K. B.**, & Rachlin, H. (2015). Reciprocation and altruism in social cooperation. *Behavioural Processes, 116*, 12–16. doi:10.1016/j.beproc.2015.04.009
- Arfer, K. B.**, & Luhmann, C. C. (2015). The predictive accuracy of intertemporal-choice models. *British Journal of Mathematical and Statistical Psychology, 68*, 326–341. doi:10.1111/bmsp.12049
- Rachlin, H., Safin, V., **Arfer, K. B.**, & Yen, M. (2015). The attraction of gambling. *Journal of the Experimental Analysis of Behavior, 103*, 260–266. doi:10.1002/jeab.113
- Kujawa, A., **Arfer, K. B.**, Klein, D. N., & Proudfit, G. H. (2014). Electrocortical reactivity to social feedback in youth: A pilot study of the Island Getaway task. *Developmental Cognitive Neuroscience, 10*, 140–147. doi:10.1016/j.dcn.2014.08.008

Conference presentations

- Arfer, K. B.**, Quinn, B., & Shoptaw, S. (2018, January 19). *Dose-response relationships of binge drinking, cannabis, inhaled nitrites (poppers), and methamphetamine with risky sex and viral load among men who have sex with men in Los Angeles*. Presentation at the CHIPTS HIV Next Generation Conference 2018, Los Angeles, CA.
- Arfer, K. B.**, & Luhmann, C. C. (2013, August 7). *The predictive accuracy of intertemporal-choice models*. Paper presented at the 46th Annual Meeting of the Society of Mathematical Psychology, Potsdam, Germany.

Posters

- Arfer, K. B.**, Tomlinson, M., Mayekiso, A., Bantjes, J., van Heerden, A., & Rotheram-Borus, M. J. (2017, June 25). *Criterion validity of self-reports of alcohol, cannabis, and methamphetamine use among young men in Cape Town, South Africa*. Poster session presented at the 40th Annual Meeting of the Research Society on Alcoholism, Denver, CO.
- Ethridge, P., Kujawa, A., **Arfer, K. B.**, Kessel, K. M., Klein, D. N., & Weinberg, A. (2016, September 23). *Monetary and social reward in early adolescence and emerging adulthood*. Poster session presented at the 56th Annual Meeting of the Society for Psychophysiological Research, Minneapolis, MN.
- Gordon, K. K., McGrath, M. R., Castro, R., Anderson, L. J., Natoli, L. J., Cohen, A. C., **Arfer, K. B.**, & Klausner, J. K. (2016, September 22). *Comparing home-collected versus clinic-collected specimens for the detection of Chlamydia trachomatis and Neisseria gonorrhoeae in anatomic sites*. Poster session presented at the 2016 STD Prevention Conference, Atlanta, GA.
- Safin, V., **Arfer, K. B.**, & Rachlin, H. (2014, May 22). *Altruism and reciprocation in the prisoner's dilemma game*. Poster session presented at the 37th Annual Meeting of the Society for the Quantitative Analyses of Behavior, Chicago, IL.

Work experience

Postdoctoral scholar, Global Center for Children and Families, 2016 – present
University of California, Los Angeles

- Manage and analyze data for 4 longitudinal public-health studies of over 1,000 participants each
- Provide statistical consultation to faculty and postdoctoral fellows
- Present research to general audiences in presentations and poster sessions

Teaching assistant and graduate student, Stony Brook University 2011 – 2016

- Programmed web-based tasks and analyzed behavioral data
- Presented research annually to a non-quantitative audience
- Taught 2 courses on research writing with frequent one-on-one student interaction
- Delivered guest lectures in statistics

Tutor, Allegheny College 2008 – 2010

- Tutored high-school and college students in mathematical subjects such as geometry, calculus, abstract algebra, and analysis

Skills

- **Data analysis:** ordinal and categorical data, multilevel and longitudinal data, zero-inflated data, predictive analysis, Bayesian methods, data visualization
- **Programming languages:** C, C++, Python, Perl, JavaScript, Lua, MATLAB, POSIX shell (see <http://arfer.net/code> for programs I've written)
- **Statistics and data software:** R, SPSS, SAS, Tableau, SQL databases
- **Documents:** MS Office (Word, Excel, PowerPoint) / LibreOffice, HTML, CSS, LaTeX
- **Misc. computer:** Web development, version control (Git), automated testing, Linux system administration

Ad-hoc reviewing

Basic and Applied Social Psychology 2016, 2017, 2018
Polish Psychological Bulletin 2017
AIDS and Behavior (special issue on alcohol and HIV) 2017
Drug and Alcohol Dependence 2016, 2017

Professional memberships

- American Statistical Association
- Research Society on Alcoholism

Honors and awards

Honorable Mention, NSF Graduate Research Fellowship Program 2012, 2013
Stony Brook University Graduate Council Fellowship 2011
Allegheny College Departmental Honors in Psychology 2011
Allegheny College Frederick H. Steen Prize for Excellence in Mathematics 2011
Phi Beta Kappa 2010
Psi Chi 2010
Nominee, Barry M. Goldwater Scholarship 2009
Allegheny College Trustee Scholarship 2007