

Summary

Data analyst and quantitatively oriented researcher with 7 years of experience, specializing in health and decision-making. Programmer with 14 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

Babinski, D. E., Kujawa, A., Kessel, E. M., **Arfer K. B.**, & Klein, D. N. (in press). Sensitivity to peer feedback in young adolescents with symptoms of ADHD: Examination of neurophysiological and self-report measures. *Journal of Abnormal Child Psychology.*

Arfer, K. B., & Jones, J. J. (2018). American political-party affiliation as a predictor of usage of an adultery website. Advance online publication. *Archives of Sexual Behavior.*

• This study received media coverage in *The Guardian*, *Pacific Standard*, etc.

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

- Biostatistician, Icahn School of Medicine, Mount Sinai Hospital** 2018 — present
- Postdoctoral scholar, Global Center for Children and Families, University of California, Los Angeles** 2016 – 2018
- Managed and analyzed data for 4 longitudinal public-health studies of over 1,000 participants each
 - Provided statistical consultation to faculty and postdoctoral fellows
 - Presented 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

Honors and awards

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| 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 |
| Allegheny College Outstanding Junior Major in Mathematics | 2010 |
| Nominee, Barry M. Goldwater Scholarship | 2009 |
| Allegheny College Trustee Scholarship | 2007 |