

# Professional resume of Stephen D. Simon

## Contact information

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## Personal

- Born June 22, 1956. Married with one child.

## Education

- Ph.D., University of Iowa, Statistics, December 1982
- M.S., University of Iowa, Statistics, December 1978
- B.A., University of Iowa, Mathematical Sciences, July 1977

## Experience (in reverse chronological order)

- Full Professor, part-time (currently 75%), Department of Biomedical and Health Informatics, University of Missouri-Kansas City (UMKC), February 2009 to present. In this position, I started the Research and Statistical Consult Service. With a second consultant, we helped with the planning of research studies, analyzed the data coming from these studies, and co-authored research presentations and publications. We helped researchers obtain internal and external grant funding. I left work with the Research and Statistical Consult Service in January 2016 because of the demands of a major research grant, but the service is still being run by another faculty member. In addition to this work, I helped with the introduction of a new Master's degree in Bioinformatics and a graduate certificate in clinical research. I helped develop three new courses (Introduction to R, Introduction to SAS, and Introduction to SPSS) including the preparation of materials for an online version of these classes. I have provided guest lectures for other classes (Responsible Conduct of Research, Clinical Trials).
- Independent Statistical Consultant, P.Mean Consulting, July 2008 to present. In this position, I have provided consulting on research design and data analysis to clients. I have specialized in helping doctoral students who are struggling with the requirements of their dissertations. I have provided webinar classes for The Analysis Factor, Novartis, and the Medical Library Association. When I first started my consulting business, I

could not find much information about the practical aspects of statistical consulting (e.g., contracts, insurance, and billing), so I developed resources on my website and blog and gave presentations and short courses on setting up a consulting practice.

- Research Biostatistician, Office of Medical Research, The Children's Mercy Hospital and Clinics (CMH), May 1996 to October 2008, with a joint appointment as Associate Professor (promoted to Full Professor, September 2007) in the School of Medicine at the University of Missouri-Kansas City. In this position, I provided statistical consulting to the doctors, nurses, and other health care professionals at CMH. Before I arrived, there was no statistical support for researchers, so I developed a consulting system from scratch. This included a series of training classes that helped researchers to become self-sufficient for some of their less complex data analyses. I wrote some informational handouts for clients and placed these on my web (now at [www.pmean.com](http://www.pmean.com)). It started slowly, but averaging one or two handouts per week, I now have a website that has over 1300 pages (over 1600 if you count my blog, [blog.pmean.com](http://blog.pmean.com), started in 2013). This website is regularly cited in both paper and electronic resources for research methodology and pops up high on the list of search engines when technical terms in research are entered. I helped many researchers get funding (both internal and external) through research grants. I worked closely with the Institutional Review Board to ensure that protocols submitted to them addressed concerns about scientific merit and protection of confidentiality. I provided training in the ethical conduct of research. I worked closely with the effort to implement Evidence Based Health Care at CMH and participated in numerous journal clubs. In 2006, I published a book on the statistical issues associated with critical appraisal of research evidence. I was the sole statistician at CMH from 1996 to 2007 and oversaw a massive expansion in the quantity and quality of research conducted there.
- Chief, Statistics Activity, Division of Biomedical and Behavioral Science, National Institute for Occupational Safety and Health, December 1987 to May 1996. I supervised a staff of two research statisticians and two computer specialists. I oversaw the administration of a Local Area Network for more than 100 users, and the maintenance of administrative and research data on a client-server database. I reviewed and approved all project protocols in the Division prior to the start of any experimental work. I worked directly with project officers in designing experiments, analyzing data, and writing results for publication. I was very active in the NIOSH effort to adopt Total Quality Management (TQM), serving as team leader, facilitator, or member of a variety of quality teams. I provided many informal training seminars in TQM for NIOSH employees.
- Research Statistician, Division of Biomedical and Behavioral Science, National Institute for Occupational Safety and Health, July 1987 to November 1987. The person who hired me for this position left shortly after I arrived and I was quickly promoted to her position (see above).
- Assistant Professor, Department of Applied Statistics and Operations Research, Bowling Green State University, September 1981 to May 1987. Duties included teaching and research. I taught Business Statistics, Experimental Design, Linear Models, Multivariate

Statistics, Nonparametric Statistics, Regression, and Statistical Packages. I published articles and made presentations in the areas of numerical accuracy, robust statistics, and computer applications. During the Summer of 1986, I served as the Assistant Director of the Statistical Consulting Center.

- Adjunct Instructor, Department of Statistics, University of Iowa, June to August 1981. I taught a three credit hour class, Statistical Computing.
- Research Assistant, Statistical Consulting Center, University of Iowa, June 1979 to August 1981. I was the student director of the Statistical Consulting Center. Under the direction of a faculty adviser, I met with faculty and graduate students and provided guidance and support for the design of research studies and the analysis of the data from those studies.

## List of research grants

[11] Frontiers: University of Kansas Clinical and Translational Science Institute (NIH UL1 TR002366, Principal Investigator: Richard Barohn). The Heartland Institute for Clinical and Translational Research has been a catalyst for bringing together translational science investigators and stakeholders across the KC region, and beyond. The vision of Frontiers is to contribute to and lead national efforts to transform the way we do clinical and translational research (CTR), and to ensure research is more rapidly and more efficiently translated to the point of care so that it may contribute to improved health. I am funded at 10% effort starting in September 2017.

[10] Greater Plains Collaborative (PCORI HSRP20162063, Principal Investigator: Lemuel Waitman). The Greater Plains Collaborative (GPC) is a new network of 10 leading medical centers in 7 states committed to a shared vision of improving healthcare delivery through ongoing learning, adoption of evidence-based practices, and active research dissemination. Role: Consultant. I billed at an hourly rate from February 2016 to August 2017 when my efforts were switched to “Frontiers: University of Kansas Clinical and Translational Science Institute” described above.

[9] Increasing HIV Screening in African American Churches. (NIH R01 MH099981, Principal Investigator: Jannette Berkley-Patton). The primary aim of the proposed study is to conduct a clustered, randomized community trial to fully test our culturally/religiously-tailored church-based HIV screening intervention against a standard information intervention on HIV screening rates at 6 and 12 months with adult AA church members and community members who use church outreach services. Role: Co-investigator. I was funded at 5% effort from July 2013 through January 2016, but had to discontinue work on this grant because of other work commitments.

8 additional grants not shown.

## List of awards

[11] Honorable mention in the R programming contest sponsored by Revolution Analytics, for R functions to predict the completion date for a prospective clinical trial, May 2014.

[10] Co-author of a research presentation (Nopper A, Wright T, Tee R, Horii K, Simon S, Popovic J, Alon U. Bone Density in Children With Hemangiomas Treated With Systemic Glucocorticoids) which received the ISSVA “R Schobinger Award” for best clinical paper presented during the 16th International Workshop on Vascular Anomalies, June 2006, Milano, Italy.

[9] Co-author of a research paper (Miller-Hansen DR, Nelson PB, Widen JE, Simon SD. Am J Audiology 2003;24(1);16-18) which received the Editor’s Award for the American Journal of Audiology for the most outstanding publication in the calendar year 2003.

8 additional awards not shown.

## Professional organizations and special committee assignments

[31] President of the Kansas City R Users Group (December 2014 to present). This group meets monthly to share information and experiences with the R programming language. When I took over, the group was threatening to fold because meetings had as few as three or four people attending. I converted the group’s publicity from a proprietary email notification system to meetup.com, changed the format of the meetings to alternate between beginner and advanced sessions, found an alternate meeting site with better seating and audiovisual equipment, and recruited new speakers for the meetings. The group has increased its membership and now has 10 to 20 attendees at most meetings.

[30] Co-organizer (with M Gerkovich) of Secondary Data Analysis working group (January 2014 through June 2015). This group meets monthly and members take turns sharing information about interesting data sources they have used. In the fall semester of 2015, this group was folded in with the graduate student seminar.

[29] Member of the Complementary and Alternative Medicine (CAM) Statisticians committee within the American Statistical Association (ASA) (August 2012 to present). This group meets annually at the Joint Statistical Meetings and conducts additional business by email and telephone. The members share experiences and concerns about statistical issues associated with CAM research studies, learns about research developments at the National Center for Complementary and Integrative Health, and provides outreach to CAM practitioners who wish to study their therapies in a rigorous and controlled fashion.

28 additional committees not shown.

## List of computer skills

- Bibliographic software: EndNotes, Knowledge Finder, Zotero.

- Database software: Microsoft Access, Microsoft SQL Server, Oracle, PC-File, SQLite.
- Graphics software: ACDSee, Metafile Companion, Photoshop Elements, SigmaPlot.
- Internet systems: File Transfer Protocol, Gopher, Telnet, USENET, WordPress, World Wide Web.
- Mathematical software: MathCAD, Mathematica, MathType.
- Presentation software: Powerpoint.
- Programming languages: BASIC, C, FORTRAN, Pascal, Perl, PL/1, Visual BASIC.
- Spreadsheets: Excel, Lotus 1-2-3, SuperCalc.
- Statistical software: AMOS, BMDP, IMSL, JMP, LogXact, MINITAB, nQuery Advisor, OpenBUGS, R, RATS, S-Plus, S-Plus/Wavelets, SAS, Stan, SPIDA, SPSS, STATA, Statgraphics, StatXact, Systat, WinBUGS.
- Utility software: DBMS/COPY, Norton Anti-virus, TextPad, WinZip.
- Word processing: Word, Word Perfect.
- Other experience: I have supervised the implementation of a Novell Local Area Network and Microsoft SQL Server, a client-server database, both for a division of 100+ employees. I have authored web pages using Adobe Acrobat, Adobe Dreamweaver, Camtasia Studio, and Microsoft Front Page. I have used and taught IBM mainframe Job Control Language, including tape and disk I/O.

## List of volunteer efforts

[11] Head of the Second Friday Movie Group, December 2004 to present, a group that offers a social outlet formerly just for members of St. Pauls United Methodist Church in Lenexa, but now open to anyone. We meet on the second Friday of each month to see a first run movie and afterwards visit a nearby restaurant to discuss the movie. As head of the group, I maintain a mailing list of members, select an appropriate movie, announce the choice, and collect RSVPs. The Movie Group hosts an Academy Awards party every year.

[10] Performer with the Back Porch Cloggers, December 1999 to May 2006, a group that performed Appalachian Clogging. We would regularly entertain at various local retirement homes and nursing facilities.

[9] Served as Vice President Education (July 2001 to June 2003), President (July 2000 to June 2001) and Sergeant-at-Arms (February 2000 to June 2000) for the Bluejacket Toastmasters Club. Toastmasters provides a mutually supportive and positive learning environment for the development of communication and leadership skills. As Vice President Education, I prepared a program of speakers and evaluators for each meeting and reviewed credentials of members applying for Competent Toastmaster, Able Toastmaster, and Distinguished Toastmaster certifications. As president, I provided support and guidance to all the other officers of the club and represent the club to the parent organization (Toastmasters International) and to outside groups. As Sergeant-at-Arms, I prepared the room for each meeting and provided refreshments. I was selected as the winner of the speech contest for my speech "I married a dog nut," March 2003, humorous speech contest for my speech "The one thing that can gross out a doctor," September 2001, and also won at the Area K-1 contest, and the Division K contest.

8 additional volunteer efforts not shown.

## Hobbies and Interests

- Appalachian Clogging, Bridge, Cats, Chess, Computers, Contra Dancing, Crossword Puzzles, Languages, Travel, Volleyball, Walking.

## List of publications

The definitive list of publications is available at <https://www.ncbi.nlm.nih.gov/myncbi/browse/collection/48071026/?sort=date&direction=descending>

[105] Simon SD. Centers for Disease Control and Prevention. In Encyclopedia of Big Data. Schintler LA, McNeely CL (eds.). In press.

[104] Simon SD. Census Bureau (U.S.). In Encyclopedia of Big Data. Schintler LA, McNeely CL (eds.). In press.

[103] Barker JP, Simon SD, Dubin J. The Methodology of Clinical Studies Used by the FDA for Approval of High-Risk Orthopaedic Devices. The Journal of Bone and Joint Surgery. American Volume. 2017; 99(9):711-719. PMID: 28463914

[102] Parthiban A, Levine JC, Nathan M, Marshall JA, Shirali GS, Simon SD, Colan SD, Newburger JW, Raghuvver G. Implementation of a Quality Improvement Bundle Improves Echocardiographic Imaging after Congenital Heart Surgery in Children. Journal of the American Society of Echocardiography : official publication of the American Society of Echocardiography. 2016; 29(12):1163-1170.e3. PMID: 27742240

[101] Jiang Y, Guarino P, Ma S, Simon S, Mayo MS, Raghavan R, Gajewski BJ. Bayesian accrual prediction for interim review of clinical studies: open source R package and smartphone application. Trials. 2016; 17(1):336. PMID: 27449769, PMCID: PMC4957321

100 additional publications not shown.

## List of regional/national presentations (first author only)

[58] Simon SD. “Design and analysis of a meta-analysis,” a 90 minute webinar presented for the The Analysis Factor, November 2018.

[57] Simon SD. “Finding customers for your independent consulting practice,” a 90 minute webinar presented for the Statistical Consulting Section of the American Statistical Association, November 2018.

[56] Simon SD. “Survival analysis,” 24 hours of webinar presentations spread across eight weeks presented for The Analysis Factor, April-June 2018. This was repeated in September-November 2018.

[55] Simon SD. “Business essentials for starting an independent consulting practice,” a 90 minute webinar presented for the Statistical Consulting Section of the American Statistical Association, August 2018.

[54] Simon SD. “Tests of equivalence and non-inferiority,” a 90 minute webinar presented for The Analysis Factor, April 2018.

53 additional presentations not shown.

## **List of research conferences attended**

[81] ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, September 2018, Washington, DC.

[80] Innovations in Design, Analysis, and Dissemination: Frontiers in Biostatistical Methods, April 2018, Overland Park, KS.

[79] Applied Stochastic Models and Data Analysis conference, June 2017, London, England.

[78] Midwest Bioinformatics Conference, April 2017, Kansas City, MO.

[77] Innovations in Design, Analysis, and Dissemination: Frontiers in Biostatistical Methods, April 2017, Kansas City, MO.

76 additional conferences not shown.

## **List of training classes**

[94] The Role of Informatics in Precision Medicine (Cambridge Innovation Institute), 1 contact hour, November 2018, Webinar.

[93] Bayesian Dynamic Borrowing of Historical Data (N Best), 4 contact hours, September 2018, Washington, DC.

[92] Artificial Intelligence in Drug Development (Q Tang), 4 contact hours, September 2018, Washington, DC.

[91] Collaboration: Putting the pieces together (E Vance, H Smith), 2.5 contact hours, July 2018, webinar.

[90] Data Visualization for Survey Research (E Mulrow, N du Toit), 4 contact hours, April 2018, Overland Park, KS.

89 additional classes not shown.

Note: This resume was created using RMarkdown and was printed on Thursday, January 17, 2019. With RMarkdown, you lose some of the fancy formatting available in other programs, but the layout is clean and simple and (most importantly) easy to maintain. Some lists were

abbreviated to keep the length of this resume reasonable. You can find a resume with the complete lists at

<https://github.com/pmean/resume/blob/master/results/full-resume.pdf>

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