

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). 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, 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] Role of cytochrome P450 in alcohol-mediated effects on antiretrovirals and HIV-1. (NIH R01 K2304028, Principal Investigator: Santosh Kumar). Our central hypothesis is that in monocytes/macrophages alcohol-mediated oxidative stress causes enhanced HIV-1 replication via pathways mediated through CYP2E1, and alcohol-mediated decrease in the efficacy of

PIs and increase in PIs-mediated toxicity concurrent with increase in the rates of HIV-1 replication is directly mediated through CYP3A4. Role: Co-investigator. I was funded at 8% effort in the first year with increasing support in future years, but support was lost in July 2014 when the PI moved to a different institution.

[7] HIV Testing in African American Churches. (NIH K01 MH082640, Principal Investigator: Janette Berkley-Patton). This Mentored Research Career Award provides support for Dr. Jannette Berkley-Patton to obtain the requisite training and expertise to develop and test a church-based intervention to increase HIV testing among African Americans. Role: Co-investigator. I was funded at 5% effort from April 2012 through July 2013 when my efforts were switched to “Increasing HIV Screening in African Americal Churches” described above.

[6] Ensuring Medication Safety in Pediatric Emergencies. (FDA U01 FD004249, Principal Investigator, Susan Rahman). In no other patient population is there more calculation and manipulation of drug doses than in children. The need to individualize pediatric doses introduces the potential for errors along the entire process of drug delivery from prescribing and transcribing the dose to diluting, compounding, dispensing and administering the final formulation. Consequently, dosing errors represent the most common type of medication error in children. Error rates in children are 3x more common than the corresponding rates in adults and in hospital settings the rate of medication errors on pediatric wards is second only to those in intensive care units. Despite the abundance of weight estimation strategies, there remains a critical need for methods that are accurate across a wide range of pediatric ages, weights, lengths, nationalities and body compositions. Consequently, we undertook the development and validation of a weight estimation method that incorporates surrogates for both stature and body habitus, requires no subjective assessment and performs robustly independently of age and length over a broad range of weights. Role: Consultant I billed at an hourly rate from September 2011 through September 2012.

[5] Health Educators in the Emergency Department to Improve Sexual Health Care for Adolescents. (NIH KL2 RR033177 & UL1 RR033179, Principal Investigator: Melissa Miller). Our objective in this application is to develop an ED-based intervention for adolescents aged 14-19 years that will increase access to care, provide more timely detection of STIs and pregnancy, and ultimately reduce adolescents’ risk for STIs and unintended pregnancies. Role: Consultant. I billed at an hourly rate from August 2011 through July 2012.

[4] CAM, Medical Service Utilization, and Quality of Care among Patients with Musculoskeletal Conditions (NIH R01 AT000891, Principal Investigator: Bill Lafferty). To inform health policy decision making at the individual and societal level by assessing the effect of complementary and alternative medicine (CAM) provider use on three primary outcomes: costs, service utilization, and quality of care for the treatment of musculoskeletal conditions. I was funded at 25% effort from November 2010 to August 2011.

[3] NDNQI Services Agreement Work Order No. 3 (Principal Investigator: Nancy Dunton). Funded by the American Nurses Association. The major goals of this project are to develop a method for unit-based acuity adjustment and to develop a method to calculate hospital level indicators. I was funded at 25% effort from February through April 2008.

[2] Sex, SLE, and Signal Transduction (NIH R01 AR50878. Principal Investigator: Jill

Jacobson). Total direct costs of \$250,000 in 2002. The major goal of this project is to demonstrate that the increase in immune responsiveness to gonadotropin-releasing hormone in female mice plays a pivotal role in increased incidence of autoimmune disease. I was funded at 5% effort from December 2001 through November 2006.

[1] Pediatric Pharmacology Research Unit (NIH U01 HD31313. Principal Investigator: Greg Kearns). Total direct costs of \$361,932 in 2002. The major goal of this project is to conduct basic and translational research focusing on regulatory events in pharmacogenetics, the ontogeny of important drug metabolizing enzymes, and pharmacodynamics that will advance our understanding of age-related differences in drug disposition and action. I was funded at 3% effort from May 1996 to December 2003.

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] Co-inventor on U.S. Patent, A System and Method for Monitoring and Analyzing Data Trends of Interest Within an Organization, filed December 2000, and sold to Cerner Corporation, February 2008.

[7] Co-author of a research paper (Moorman WJ, Skaggs SR, Clark JC, Turner TW, Sharpnack DD, Murrell JA, Simon SD, Chapin RE, Schrader SM [1998]. Male reproductive effects of lead, including species extrapolation for the rabbit model. Reproductive Toxicology 12(3): 333-46.) which was the winner of the Alice Hamilton Award for 1999 for the best research paper in occupational safety and health (Biological Sciences Category).

[6] My presentation, “Medical Statistics Case Studies on the Web,” was voted as the best presentation in the area of Teaching Statistics in the Health Sciences at the Joint Statistical Meetings in Anaheim CA, August 1997.

[5] Received Public Health Service Commendation Medal in July 1994 for my oversight of a laboratory modernization effort that included the use of a client-server data base system, remote monitoring of laboratory systems, automation of chemical workups using laboratory robotics, laptop systems for data collection in the field, and real-time data collection interfaces for Liquid and Gas Chromatography instruments.

[4] Co-author of a research paper (Stettler LE, Platek SF, Riley RD, Mastin JP, Simon SD [1991]. Lung particulate burdens of subjects from Cincinnati, Ohio urban area. *Scanning Microscopy* 5(1):85-94) which was a finalist for the Alice Hamilton Award for 1992 for the best research paper in occupational safety and health.

[3] Co-author of a research paper (Schrader SM, Turner TW, Simon SD [1990]. Longitudinal Study of Semen Quality of Unexposed Workers: II. Sources of Variation of Sperm Head Morphometry. *Journal of Andrology* 11(1):32-39) which was the winner of the Alice Hamilton Award for 1991 for the best research paper in occupational safety and health. This paper was nominated by NIOSH for the Charles C. Shepard Science Award for best scientific research paper in CDC.

[2] Received Public Health Service Achievement Medal in April 1990 for producing cost savings and greater operational efficiency through the use of micro-computer analysis of statistical data.

[1] Co-author of a research paper (Schrader SM, Turner TW, Breitenstein MJ, Simon SD [1988]. Longitudinal Study of Semen Quality of Unexposed Workers. I. Study Overview. *Reproductive Toxicology* 2:183-190) which was the winner of the Alice Hamilton Award for 1990 for the best research paper in occupational safety and health.

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] Provided feedback on presentations at the Greater Kansas City Society of Health System Pharmacy Resident Research Day, September 2014, September 2015, and September 2017.

[27] Refereed research papers for American Journal of Obstetrics and Gynecology in 2011, BMJ in 2006 and 2007, the Annals of Allergy, Asthma & Immunology in 2003 and 2004, BMC Medical Research Methodology in 2002, the Journal of Andrology, in 1999 and 2000, for the American Statistician, in 1985 and 1992, and for the International Journal of Science and Engineering, in 1983.

[26] Member of the ASA Traveling Course committee (August 2004 to August 2006). The Traveling Course committee solicits speakers who are willing to offer a one day short course on an important topic in Statistics. This course is available for three local ASA chapters. The committee reviews applications and selects three chapters to host the course. The committee then arranges all of the travel and other logistics along with the appropriate local ASA chapter officers.

[25] Member of the Kansas University Medical Center Data Safety and Monitoring Executive Committee (January 2002 to June 2008) and Vice-Chair (January 2005 to June 2008). The Data Safety and Monitoring Board provides on-going review of research projects at the Kansas University Medical Center where there is a conflict of interest for the primary investigator or where early stopping of a trial would be considered for early evidence of efficacy or early evidence of an unacceptable rate of adverse events.

[24] Member of the University of Missouri Kansas City School of Medicine search committee for a M.S. Biostatistics position (April 2007 to June 2007). Assisted with review of resumes, personal interviews, and evaluation.

[23] Member of the University of Missouri Kansas City School of Medicine search committee for a Ph.D. Biostatistics position (July 2006 to April 2007). Assisted with review of resumes, personal interviews, and evaluation.

[22] Member of the University of Missouri Kansas City School of Nursing search committee for a Ph.D. Biostatistics position (September 2005 to November 2005). Assisted with personal interviews and evaluation.

[21] Chaired the planning committee for the April 2004 short course by C Davis on Statistical Methods for the Analysis of Repeated Measurements. Served on the planning committees for: the February 1996 short course by R. Helms on Mixed Models, the March 1993 short course by R. Hogg on Total Quality Management; the April 1992 U.S. Public Health Service Professional meeting; the March 1992 ENAR Biometrics meeting; and the November 1990 Ohio Statistics Conference.

[20] Council of Chapters Representative (July 2001 to June 2004), President (July 1998 to June 2000), and Vice President (July 1997 to June 1998) for the Kansas/Western Missouri chapter of the ASA. The Kansas-Western Missouri chapter provides statistics seminars and other presentations from local and national experts for locations in Western Missouri and in Kansas. As Council of Chapters representative, I served as a liaison between the local ASA chapter and the national office. As president, I provided support and guidance to all the other officers of the chapter and represented the club to the parent organization (the American Statistical Association). As vice-president, I recruited speakers and organized the time and location of statistics presentations.

[19] Served on an advisory committee to develop a Health Outcomes Research Masters Degree program for the University of Missouri, Kansas City, October 1999 to February 2000.

[18] Founder and president of the Childrens Mercy Hospital Internet Users Group, April 1997 to June 1998. The Internet Users Group provides a forum for individuals to share their expertise on Internet topics. The steering committee identifies speakers and topics for meetings and prepares publicity. As founder, I scheduled and ran an organizational meeting for the group, developed the structure and goals of this group, and recruited volunteers for the steering committee. As a president of the steering committee, I arrange meetings of this group and provide overall guidance.

[17] Member of the Division Quality Council, July 1995 to May 1996. The Quality Council identifies quality problems within a division of 100 employees at NIOSH, recruits teams to address these problems, and provides continual oversight and feedback to these teams.

[16] Secretary/Treasurer of Cincinnati Chapter of the American Statistical Association, July 1995 to June 1996. The Cincinnati chapter provides statistics seminars and other presentations from local and national experts for locations in and around Cincinnati, including Oxford, Ohio. As Secretary/Treasurer, I obtained meeting rooms and appropriate audiovisual equipment for Statistics presentations, prepared publicity for each meeting, maintained the organization's mailing list, and balanced the organization's checking account.

[15] Member of the Quality Management Advisory Board for the College of Mount St. Joseph, May 1995 to May 1996. The Quality Management Advisory Board provides advice to the College of Mount St. Joseph regarding its newly developed undergraduate degree program in Quality Management. The board consists of representatives of the Cincinnati business and government communities as well as students and faculty from the Quality Management program itself.

[14] Co-chair of the Statistics, Data Analysis and Modeling Section of the 1995 Midwest SAS Users Group conference in Cleveland OH (with D Wild). The co-chair provides review of all papers submitted to this section of the conference. I contacted presenters to verify audiovisual needs and met with presenters prior to the start of the meeting to answer questions. In addition, I performed any necessary troubleshooting before or during the start of each session at the conference, and ensured that evaluation forms were completed and delivered to the conference organizer at the end of each session.

[13] Cincinnati NIOSH Representative to the Cincinnati Federal Executive Board Reinvention Subcommittee, October 1994 to September 1995. The reinvention subcommittee provides Cincinnati Federal Government agencies with a professional source of expertise on the issues addressed in the National Performance Review, and presents various seminars that address handling change and coping with streamlining initiatives.

[12] Team Leader for NIOSH Organizational Climate Survey Team (July 1993 to January 1994), and team member (January 1994 to May 1996). This Organizational Climate Survey Team distributed and analyzed a survey in August and September 1993 to assess the perceptions of NIOSH employees towards Total Quality Management. Our team presented a report detailing our analysis of this survey to the NIOSH Quality Council in December 1993. The team has

proposed a revision of this survey, which we plan to implement on a semi-regular basis (e.g., every two to three years) to assess the changes in employee perceptions over time.

[11] Team Facilitator for Division Manuscript Review Team, June 1993 to May 1996. The Manuscript Review Team applied Total Quality Management principles to implement improvements to the manuscript review procedure for a division of 100 employees at NIOSH. Our goal was to decrease the time required for internal review while still maintaining quality of the manuscripts. As facilitator, I did not participate in the actual decisions being made, but instead worked to ensure that decisions made are founded on team consensus and full, open, and honest participation from all team members. I encouraged the use of TQM tools such as flow charts and cause-and-effect diagrams.

[10] Member of NIOSH Surveillance Coordinating Group, January 1993 to May 1996. The Surveillance Coordinating Group coordinates all surveillance related research throughout NIOSH, prepares reports on surveillance activities for the public, and sets standards on variable naming definitions.

[9] Member of CDC Statistical Advisory Group, October 1992 to May 1996. The Statistical Advisory Group advises the Assistant Director for Science of the Centers for Disease Control and Prevention on matters of policy relating to Statistics.

[8] Chair of the Division Seminar Series committee, September 1992 to August 1994. The Seminar Series committee organizes weekly research and safety seminars for a division of 100 employees at NIOSH, and prepares publicity for these seminars.

[7] Assisted in the preparation of a poster “Statistics at NIOSH,” which was on display at the Hamilton County Public Library (main branch) during November 1989 to commemorate the 150th anniversary of the American Statistical Association.

[6] Founder and Co-chair of NIOSH Statistical Discussion Group, July 1989 to May 1996. The Statistics Discussion Group provides a forum for informal discussion of professional issues relevant to Statisticians in the five Cincinnati Divisions of NIOSH and the two Morgantown Divisions. As founder of the Statistical Discussion Group, I scheduled and ran an organizational meeting for the group, developed the structure and goals of this group, and recruited a co-chair for the group. As Co-chair, I was responsible for organizing meetings and for publicity for Statisticians in two Divisions at the Taft Laboratories in Cincinnati.

[5] Organizer and chair of the executive board for the Division Microcomputer Users Group, September 1988 to March 1989, and member of the executive board, April 1989 to June 1990. The Microcomputer Users Group coordinated microcomputer purchases and provided educational services for a division of 100 employees at NIOSH. As founder of this group, I scheduled and ran an organizational meeting, developed the structure and goals of this group, and recruited volunteers for the steering committee. I was responsible for coordinating publicity and monthly meetings. I served as the liaison to the Hamilton Users Group, a similar group for two other divisions in NIOSH.

[4] Charter President of the Bowling Green IBM PC Users Group, September 1985 to May 1987. I was responsible for recruiting speakers for their bi-monthly meetings, for publicizing

these meetings, and for maintaining their membership list. I supervised the public domain librarian and the SYSOPs of the group's Bulletin Board System.

[3] President (June 1985 to May 1986); Vice President (June 1984 to May 1985); and Secretary/Treasurer (June 1983 to May 1984) of the Northwest Ohio chapter of the American Statistical Association. The Northwest Ohio chapter provides statistics seminars and other presentations from local and national experts for locations in Northwest Ohio. As president, I provided support and guidance to all the other officers of the club and represented the club to the parent organization (the American Statistical Association). As vice-president, I recruited speakers and organized the time and location of statistics presentations. As secretary/treasurer, I obtained meeting rooms and appropriate equipment for statistical presentations, prepared publicity for each meeting, maintained the organization's mailing list, and balanced the checking account.

[2] Programmed and tested in 1987 with LM Quinn a set of Turbo Pascal programs (SAMPLE, SAMSTAT, CONFINT, CHART, and HISTGRAM) that illustrate the random sampling process on real world data sets. In my Business Statistic courses, I have run these programs as part of my lectures on the Central Limit Theorem, on the effect of sample size on sampling error, and on the meaning of confidence in a 95% confidence interval. In addition, I have used these programs in a presentation, "Simulating Random Sampling" (see above) and in "Using some Turbo Pascal programs to simulate random sampling in the classroom" (see above).

[1] Programmed, documented, and tested in 1986 a series of benchmarks written in BASIC and Pascal (NUMACC.BAS and NUMACC.PAS) to evaluate numerical accuracy.

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] Tutored for the Adult Basic Literacy program, March 2000 to December 2001, two hours per week. I provided assistance to adults who were studying for their GED degree.

[7] Tutored students at Longfellow Elementary School, November 1999 to March 2000, one hour per week. I provided assistance to a third grade student in various academic areas, mostly math.

[6] Edited the Red Oak Hills Homeowners Association newsletter, November 1998 to April 2002. This newsletter appears four or more times a year and highlights information of interest to the 275 home owners in Red Oak Hills.

[5] Served as President (July 1994 to June 1995) and charter member (March 1993 to May 1996) of Cincinnati NIOSH Toastmasters. Toastmasters provides a mutually supportive and positive learning environment for the development of communication and leadership skills. As president, I provided support and guidance to all the other officers of the club and represented the club to the parent organization (Toastmasters International) and to outside groups. In April 1995, I earned the Competent Toastmasters Certificate for successful completion of the ten speech projects in the Toastmasters Communication and Leadership Program. I was

selected as the winner of the humorous speech contest for my speech “Puns and Poetry,” September 1994, and also won at the Area 32 contest. I was selected as winner of the Table Topics (extemporaneous speech) contest, September 1994 for my response to the question “What famous person would you like to have lunch with?”

[4] Keyperson for the Combined Federal Campaign, Fall 1989. I passed out pledge forms for the Combined Federal Campaign, a program for federal employees similar to United Way, and answered questions about this program.

[3] Assisted in the proctoring and grading of tests in a Math contest sponsored by Miami University, Middletown, March 1988.

[2] Selected as faculty advisor for Bowling Green State University Chess Club, Fall 1984 to Spring 1987.

[1] Computerized the mailing list with DK Wild for the Wood County Humane Society using PC-FILE III, Spring 1985.

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, Raghuveer 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] Prindaville B, Simon SD, Horii KA. Dermatology-related outpatient visits by children: Implications for workforce and pediatric education. *Journal of the American Academy of Dermatology*. 2016; 75(1):228-9. PMID: 27317526
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List of regional/national presentations (first author only)

- [55] Simon SD. "Survival analysis," 24 hours of webinar presentations spread across eight weeks presented for The Analysis Factor, April-June 2018. This will be repeated in September-November 2018.
- [54] Simon SD. "Tests of equivalence and non-inferiority," a 90 minute webinar presented for The Analysis Factor, April 2018.
- [53] Simon SD. "Mining the electronic health record. Why and how," a 30 minute presentation for the regional Frontiers in Biostatistics conference, Kansas City, MO, April 2018.
- [52] Simon SD. "Using transformations to improve your linear regression model," a 90 minute webinar presented for The Analysis Factor, March 2018.
- [51] Simon SD. "Setting up your independent consulting practice," a 90 minute talk for the Center for Research Methods and Data Analysis, Lawrence, KS, February 2018.
- [50] Simon SD. "Good Computing Practices for Researchers," a 90 minute webinar presented for The Analysis Factor, November 2017.
- [49] Simon SD. "Simulating clinical trials," an invited 20 minute presentation for the Applied Stochastic Modeling and Data Analysis conference, London, England, June 2017.
- [48] Simon SD. "LASSO Regression," a 90 minute webinar presented for The Analysis Factor, November 2016.
- [47] Simon SD. "Cox Regression," a 90 minute webinar presented for The Analysis Factor, September 2016.
- [46] Simon SD. "Formal Programs Teaching Critical Appraisal in Evidence-Based Medicine," an invited 20 minute presentation for the Joint Statistical Meeting, Chicago, IL, August 2016.
- [45] Simon SD. "Introduction to Kaplan-Meier Curves," a 90 minute webinar presented for The Analysis Factor, April 2016.
- [44] Simon SD. "A Gentle Introduction to Bayesian Data Analysis," a 90 minute webinar presented for The Analysis Factor, June 2015.
- [43] Simon SD. "The Hedging Hyperprior," a 30 minute presentation for the regional Frontiers in Biostatistical Methods Conference, Kansas City MO, April 2015.

- [42] Simon SD. “Setting Up and Running an Independent Statistical Consulting Practice,” an invited four hour short course for the Conference on Statistical Practice, New Orleans LA, February 2015.
- [41] Simon SD, Sanders S. “Statistics for Medical Librarians,” an invited three hour short course for the Medical Librarians Association national meeting, Chicago IL, May 2014.
- [40] Simon SD, “Selecting an Appropriate Sample Size” and “Conducting a Pilot Study,” part of a three hour short course, Writing a CAM Grant, for the International Research Conference on Complementary Medicine, Miami FL, May 2014.
- [39] Simon SD. “What is a P-Value?” an invited one hour short course for the Midwest Society of Pediatric Research, October 2013, Minneapolis MN.
- [38] Simon SD. “Data sources for a proposed course on secondary data analysis,” an invited 20 minute presentation for the Joint Statistical Meetings, Montreal, Canada.
- [37] Simon SD, Sanders S. “Statistics for Medical Librarians,” an invited three hour short course for the Medical Librarians Association national meeting, Seattle WA, May 2012.
- [36] Simon SD, “Selecting an Appropriate Sample Size” and “Characteristics of a Good Statistical Consultant,” part of a three hour short course, Writing a CAM Grant, for the International Research Conference on Complementary Medicine, Portland OR, May 2012.
- [35] Simon SD. “Promoting Your Consulting Career,” an invited two hour short course for the Conference on Statistical Practice, Orlando FL, February 2012.
- [34] Simon SD. “How Independent Consulting is Different,” part of a panel discussion, Statistical Consulting - Working Collaboratively Across Disciplines, for the Conference on Statistical Practice, Orlando FL, February 2012.
- [33] Simon SD, Sanders S. “Statistics for Medical Librarians,” an invited three hour short course for the Southeast Region of Medical Librarians Association annual meeting, Augusta GA, May 2012.
- [32] Simon SD. “How Independent Consulting is Different,” part of a panel discussion, Successful Statistical Consulting: The Practicalities, for the Joint Statistics Meeting, Miami Beach FL, August 2011.
- [31] Simon SD. “Using Social Media to Promote Your Consulting Career,” a lunchtime roundtable discussion for the Joint Statistics Meeting, Miami Beach FL, August 2011.
- [30] Simon SD. “What is a P-Value?” an invited one hour short course for the Midwest Society of Pediatric Research, October 2010, Iowa City IA.
- [29] Simon SD. “Discussion of Morphology Consensus Data,” an invited two hour presentation including near real-time data analysis of classroom exercises for the Andrology Lab Workshop at the Andrology Society national meeting, April 2010, Houston, TX.
- [28] Simon SD. “What Do All These Numbers Mean? Confidence Intervals and P-Values,” an invited one hour short course for the Midwest Society of Pediatric Research, October 2009, Chicago IL.

- [27] Simon SD. "Discussion of Morphology Consensus Data," an invited two hour presentation including near real-time data analysis of classroom exercises for the Andrology Lab Workshop at the Andrology Society national meeting, April 2009, Philadelphia, PA.
- [26] Simon SD, Gajewski BJ "Bayesian tools for planning and monitoring accrual rates in clinical trials," an invited 30 minute oral presentation for the regional Frontiers in Biostatistical Methods Conference, April 2008, Kansas City, MO.
- [25] Simon SD. "Assessing the Safety of Pediatric Treatments," an invited four hour short course for the Signal Detection and Risk Management conference, December 2007, Amsterdam, The Netherlands.
- [24] Simon SD. "Control charts for continuous monitoring of the number needed to harm," an invited 35 minute oral presentation for the Signal Detection and Risk Management conference, December 2007, Amsterdam, The Netherlands.
- [23] Simon SD. "Use of Diagnostic Tests for Making Clinical Decisions," an invited 30 minute oral presentation for the Annual Scientific Meeting of the American College of Allergy, Asthma & Immunology, November 2007, Dallas TX.
- [22] Simon SD. "Statistical Evidence: Who Was Left Out," an invited 1.5 hour short course for the Midwest Society for Pediatric Research, October 2007, Indianapolis, IN.
- [21] Simon SD, Gajewski B "Predicting Accrual in Clinical Trials: Bayesian Posterior Predictive Distributions," a contributed poster for the Joint Statistical Meetings, July/August 2007, Salt Lake City UT.
- [20] Simon SD, Schrader SM. "Using Statistics to Monitor and Improve Quality," an invited three hour short course (I was responsible for two hours) for the 2007 Andrology Lab Workshop for the American Society for Andrology, April 2007, Tampa Bay, FL.
- [19] Simon SD. "Control charts for continuous monitoring of the number needed to harm," an invited 35 minute oral presentation for the Signal Detection and Data Mining conference, December 2006, London, England.
- [18] Simon SD. "Signal Detection Strategies for Paediatric Treatments," an invited 3 hour short course for the Signal Detection and Data Mining conference, December 2006, London, England.
- [17] Simon SD. "Statistics Overview," an invited two hour presentation for the Midwest Society for Pediatric Research, October 2006, Indianapolis IN.
- [16] Simon SD. "Statistical Evidence: Apples or Oranges?" an invited 1.5 hour short course for the Midwest Society for Pediatric Research, October 2005, St. Louis MO.
- [15] Simon SD. "What Can Alternative Medicine Teach Us About Evidence-Based Medicine?" an invited 1.5 hour short course for the Midwest Society for Pediatric Research, October 2004, St. Louis MO.
- [14] Simon SD. "Four Tips for Developing an Educational Web Site," a contributed poster presentation for the Joint Statistical Meetings, August 1998, Dallas TX.

- [13] Simon SD. “Medical Statistics Case Studies on the Web,” a contributed 15 minute oral presentation for the Joint Statistical Meetings, August 1997, Anaheim CA.
- [12] Simon SD. “Winning Ways of Laboratory Data Presentation: Analyzing and Presenting Your Laboratory Data,” Course Co-director and Instructor for an 8 hour Andrology workshop. As an instructor, I presented two separate talks and supervised several computer exercises. American Society for Andrology, April 1996, Minneapolis, MN.
- [11] Simon SD and many others. “NIOSH Training Course 553: Statistical Analysis for Industrial Hygiene Sampling and Decision Making,” which was offered on an annual basis from 1988 through 1993. I delivered approximately 6 to 8 hours of lectures in a 36 hour class, covering topics such as Normal and Lognormal Distributions; Distributions of Means and Errors in Exposure Measurements; Confidence and Tolerance Limits; and Selection of Workers and Times to be Sampled.
- [10] Simon SD, Schrader SM. “Statistical Methods and Experimental Design in the Reproductive Laboratory,” a contributed oral presentation for the Annual Meeting of the American Society for Reproductive Medicine, October 1995, Seattle WA.
- [9] Simon SD, Schrader SM, Turner TW. “Statistical Methods for Human Reproductive Toxicology Research,” an invited presentation at the Biometric Society meeting, April 1994, Cleveland OH.
- [8] Simon SD, Schrader SM, Turner TW. “The Use of Tolerance Intervals for Assessing Male Reproductive Potential,” a contributed 15 minute presentation for the Joint Statistical Meetings, August 1989, Washington, DC.
- [7] Simon SD. “SAS/Graph on the PC: User Experiences,” a round-table discussion section held at the SAS Users Group International conference, April 1990, in Nashville, TN.
- [6] Simon SD and many others. “Methods for semen studies in humans,” held in Washington DC, October 1989. I led discussion in three areas: “Assessing variability between and within individuals”; “Design considerations for parameters measured on individual cells”; and “Recoding continuous semen quality data as a binary response: the application of tolerance intervals to morphometry data.”
- [5] Simon SD, Lesage JP. “Studying Numerical Accuracy as a Controlled Experiment,” a contributed presentation for the Conference on the Interface Between Computer Science and Statistics, March 1987, Philadelphia PA and published in the conference proceedings.
- [4] Simon SD, Quinn LM. “Using Some Turbo Pascal Programs to Simulate Random Sampling in the Classroom,” a contributed presentation for the Winter Conference of the American Statistical Association, January 1987, Orlando FL. There is a very similar talk by the same authors, “Simulating Random Sampling,” a contributed presentation for the Mathematics and Statistics conference, September 1985, Oxford OH.
- [3] Simon SD. “The Median Star: an Alternative to the Tukey Resistant Line,” a contributed 15 minute presentation for the Joint Statistical Meetings, August 1986, Chicago IL and published in the Proceedings of the Statistical Computing Section.

[2] Simon SD. “Quick Estimates of Slope Based on the Cox and Stuart Test for Trend,” a contributed 15 minute presentation for the Joint Statistical Meetings, August 1985, Las Vegas NV.

[1] Simon SD, Lesage JP. “The Impact of Centering and Scaling on Numerical Accuracy of Regression Algorithms,” a contributed presentation for the Applied Simulation and Modeling conference, June 1985, Montreal Canada and published in the conference proceedings.

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. This is a full resume with complete lists of grants, publications, etc. Some of the lists are very long. You can view an abbreviated resume at

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

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