

# N. Shirlene Pearson, Ph.D.

## *Statistical Consulting & Expert Witness Testimony*

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### **Professional Summary**

Statistician, statistical consultant, and expert witness with extensive interdisciplinary experience in litigation support, business analytics, healthcare research, survey methodology, telecommunications traffic engineering, network reliability analysis, and statistical audit support for CPA firms. Ph.D. in Statistics with decades of consulting experience involving expert testimony, statistical modeling, audit sampling plans, extrapolation methodologies, clinical trials, predictive analytics, and higher education assessment.

Former Director of the Center for Statistical Consulting and Research at Southern Methodist University. Experienced in both academic and industry environments, including Bell Laboratories, Bell Communications Research (Bellcore), MCI WorldCom, and the Applied Research Laboratories at The University of Texas at Austin.

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### **Current Areas of Practice**

- Statistical expert testimony
  - Litigation support and statistical analysis
  - Survey design and methodology
  - Clinical trials and biostatistics
  - Predictive analytics and forecasting
  - Employment discrimination analysis
  - Healthcare outcomes analysis
  - Sampling plans and extrapolation methodologies
  - Educational assessment and institutional research
  - Statistical computing and data analytics
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### **Statistical Consulting & Expert Witness Experience**

#### **Litigation Support & Expert Testimony**

- Employment discrimination analysis
- Insurance fraud investigations including Medicare and Medicaid
- Patent infringement claim analysis

- Contract and inventory disputes
- Medical malpractice support
- Election fraud analysis
- Statistical sampling and extrapolation for audits
- Evaluation of survey-based legal evidence

### **Healthcare, Biostatistics & Clinical Trials**

- Clinical trial analysis involving degenerative visual disorders
- Cardiovascular risk studies
- Psychiatric instrument analysis
- Brainwave and communication disorder studies
- Physical therapy outcomes analysis
- Cosmetic surgery effectiveness studies
- Rehabilitation and healthcare intervention studies

### **Higher Education & Institutional Research**

- Student retention and academic success modeling
- Curriculum assessment and course evaluation analysis
- Institutional survey design and analysis
- Library instruction impact studies
- Student satisfaction and learning outcomes assessment

### **Business Analytics & Survey Research**

- Forecasting and predictive analytics
- Sampling plans and extrapolation of financial audits
- Customer satisfaction survey methodologies
- Healthcare insurance subscriber trend analysis
- Real estate statistical methodologies
- Consumer behavior and environmental concern studies

### **Additional Interdisciplinary Research Support**

Consulting and statistical analysis support for projects involving:

- Anthropology
- Communications research
- Art history acoustics analysis
- Political and voter attitude studies
- Language acquisition research

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## Professional Experience

### Pearson Statistical Consulting & Expert Witness Testimony

#### Principal Statistician and Consultant | 1999–Present

Independent statistical consulting practice specializing in expert testimony, litigation support, biostatistics, survey methodology, institutional research, and predictive analytics.

### Southern Methodist University

#### Adjunct Professor & Director, Center for Statistical Consulting and Research | 1999–2020

Provided statistical consulting and research support across multiple university divisions including:

- Department of Statistical Science
- Provost Office of Assessment & Accreditation
- Center for Teaching Excellence
- Academic Technology Services

Courses taught included:

- Introduction to Statistical Computing
- Statistical Consulting
- Statistics for Modern Business Decisions
- Introduction to Statistical Methods

### Prior Technical and Research Leadership Roles

#### MCI WorldCom

Senior Engineer II — Network Reliability and Performance

#### Applied Research Laboratories, The University of Texas at Austin

Research Scientist Associate V — Telecommunications Systems, Network Modeling, Radio Frequency Propagation Analysis

#### Bell Communications Research (Bellcore)

District Manager and Member of Technical Staff — Software Systems, Quality Analytics, Telecommunications Performance Analysis

#### Bell Telephone Laboratories

Member of Technical Staff — System Analysis, Human Factors, Network and Processor Utilization

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## **Education**

**Ph.D., Statistics** — Southern Methodist University  
Dissertation: Time Series Analysis

**M.S., Statistics** — Southern Methodist University

**M.A., Mathematics** — The University of Texas at Austin  
Thesis: Algebra

**B.A., Mathematics** — The University of Texas at Austin  
Minors: Biology and Chemistry

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## **Statistical Computing & Technical Expertise**

- R
- SAS
- SPSS
- Qualtrics
- Statistical modeling and predictive analytics
- Survey analytics
- Excel and VBA
- UNIX/Linux scripting
- JavaScript and HTML
- Access databases
- Statistical graphics and reporting systems

Additional experience includes:

Splunk, FORTRAN, RATFOR, awk/gawk, FileMaker Pro, and telecommunications systems modeling tools.

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## **Professional Affiliations & Leadership**

- American Statistical Association — Long-time member
- President, North Texas Chapter, American Statistical Association
- Vice President and Program Chair, North Texas Chapter, American Statistical Association

- Program Chair, Section on Statistical Consulting, Joint Statistical Meetings
  - Session Chair, Section on Statistical Consulting, Joint Statistical Meetings
  - Program Committee, Bell Laboratories Statistics Day Annual Conference
  - Member at Large, Section on Statistical Consulting
  - Sigma Xi Scientific Research Honor Society
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## **Selected Publications & Presentations**

1. Blake, J., Bowles-Terry, M., Pearson, N. S., and Szentkiralyi, Z.  
*The Impact of Information Literacy Instruction on Student Success: A Multi-Institutional Investigation and Analysis*. 2017.
2. Hoffman, D. R., et al., including Pearson, N. S.  
*Docosahexaenoic Acid Slows Visual Field Progression in X-Linked Retinitis Pigmentosa*. Investigative Ophthalmology & Visual Science, 2015.
3. Hoffman, D. R., et al., including Pearson, N. S.  
*A 4-Year Randomized Clinical Trial of Docosahexaenoic Acid in X-Linked Retinitis Pigmentosa*. JAMA Ophthalmology, 2014.
4. Pearson, N. S.  
*Introduction to Clickers & Test Questions Using Them*. Educause Southwest Regional Conference, 2010.
5. Chaddha, R. L., King, A. W., and Pearson, N. S.  
*Providing Buyer Feedback on Digital Switch Field Performance*. IEEE Journal on Selected Areas in Communications, 1988.

Additional technical reports and telecommunications systems analyses published through Bell Laboratories, Bell Communications Research, MCI WorldCom, and Applied Research Laboratories.

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## **Additional Information**

Available for:

- Statistical consulting
- Expert witness testimony
- Litigation support
- Research collaboration
- Institutional assessment and survey analysis
- Independent statistical review