

Shelley K. Burns
8104 Sleepy View Lane
Springfield, VA 22153
(703) 282-1540

QUALIFICATIONS

Experienced mathematical statistician with a wide range of research and analytic skills. In-depth experience with all aspects of survey research, including conceptual development, survey design management, and quantitative data analysis using appropriate statistical methodology. Specific expertise in data confidentiality and statistical disclosure limitation procedures. Effective written and oral communication skills.

PROFESSIONAL EXPERIENCE

Mathematical Statistician – Institute of Education Sciences (IES) Disclosure Review Board Chair

August 2011 – April 2025
Statistical Standards and Data Confidentiality Staff
National Center for Education Statistics
U.S. Department of Education
Washington, DC 20208

Served as IES Disclosure Review Board (DRB) Chair. Responsible for all functions of the DRB of a major federal statistical agency, managing the integral final requirement for the timely release of statistical and evaluation data to the public. Planned and conducted studies related to evaluating the impact of the statistical disclosure avoidance techniques on all data produced by the Centers of IES, the largest producer of education research data and evaluation studies within the federal government.

Prepared specifications and developed statistical disclosure limitation (SDL) procedures, utilizing current statistical methodologies. Analyzed and evaluated the accuracy and validity of the resulting data. Documented the results of these analyses and made recommendations as to the release of data to the head of the Agency. Provided technical expertise to survey and study programs on developing measures and models to ensure data products met disclosure avoidance requirements mandated by federal laws and regulations, including the Privacy Act of 1974, the E-Government Act of 2002, the Education Sciences Reform Act of 2002 (ESRA 2002), and the Foundations for Evidence-Based Policymaking Act of 2018. Collaborated with colleagues within the survey research community on SDL and provided topical expertise within the Department of Education.

Represented the National Center for Education Statistics (NCES) at the inter-agency Committee on Disclosure and Confidentiality (CDAC). Oversaw the IES restricted-use data license system that provides IES RUF data, and other Department of Education restricted-use data to education researchers throughout the United States.

Contributed to the refinement and implementation of the IES/NCES Statistical Standards with a particular focus on data confidentiality, survey weighting and variance estimation. Served as a technical expert on statistical and survey methodology in addition to statistical disclosure limitation procedures. Used statistical and survey methodology expertise to develop innovative solutions and procedures to problems that arose within IES and the ED.

Served as the Project Officer for the NCES Handbook of Survey Methods, documenting key aspects of the sample design, data collection, and data processing of all NCES surveys on a continuing basis.

Maintained Contracting Officer's Technical Representative (COR) certification and functions to manage contracts to provide statistical, technical review and data confidentiality support for the NCES. Effectively performed all COR functions required including the development of Performance Work Statements, Independent Government Cost Estimates, and contract management and contractor performance evaluation specifications.

Mathematical Statistician – Team Leader for Technical Review

2004 - August 2011

Office of the Deputy Commissioner
National Center for Education Statistics
U.S. Department of Education
Washington, DC

Conducted and oversaw technical review of statistical reports and data for all divisions within NCES as a member of the Statistical Standards Program (SSP) under the Office of the Deputy Commissioner, NCES. Served as an active member of the IES Disclosure Review Board (DRB) representing the surveys and studies of the Early Childhood, International and Cross-cutting Studies Division (ECICSD).

Served as a Technical Expert on survey methodology and appropriate application of the IES/NCES Statistical Standards to NCES data and analytical reports. Coordinated with SSP staff to produce accurate and timely responses to questions on statistical methodology from both IES staff and Offices in the ED.

Assumed role as Project Officer for the NCES Handbook of Survey Methods, documenting key aspects of the sample design, data collection, and data processing of all NCES surveys. Produced a new 2011 version incorporating new NCES surveys previously not documented. This resource provides technical survey design and processing information from a disparate catalog of data

collections in a single user-friendly format for researchers and policy makers to determine which NCES survey data will meet their needs.

Served as the Contracting Officer's Technical Representative, COR, for contracts within the SSP and Office of the Deputy Commissioner (ODC). Uncovered and resolved serious management issues with a contract to provide training seminars for academic researchers on the appropriate statistical and survey methodology techniques to analyze NCES complex statistical data. Worked on the development of Requests for Proposals, Performance Statements of Work and Independent Government Cost Estimates for multiple contract vehicles. Successfully participated in contract negotiations and all aspects of the contract award process to reduce costs to ED on these contracts.

Served as the Project Officer for two rounds of data collection on NCES Customer Service Satisfaction survey. Updated the sampling frame for the NCES ACSI customer service. Coordinated the completion of the frame and the drawing of the sample using appropriate statistical and survey methodologies. Revised the NCES online survey of customer satisfaction on the NCES web site to improve customer response rates.

Education Statistician – Senior Technical Advisor

2000-2004

Early Childhood, International and Cross-cutting Studies Division
National Center for Education Statistics
U.S. Department of Education
Washington, DC

Conducted and oversaw technical review of statistical reports and data for the Early Childhood, International and Cross-cutting Studies Division (ECICSD), including the congressionally mandated Condition of Education and high-profile annual reports on school crime and student dropout rates. Managed a contract to conduct thorough and timely technical review of division products, providing clear feedback on changes needed to meet NCES technical and publication standards, ensuring that reports contained accurate descriptions of the statistical methodology employed, reached appropriate conclusions, and conformed to NCES statistical standards. Represented the ECICS Division on the NCES Disclosure Review Board (DRB) working in collaboration with other staff to create and maintain NCES-wide consistent policies for statistical disclosure limitation. Served as an active member of the Statistical Standards Review Steering Committee to create new NCES Statistical Standards. Supervised analytical studies of education data on key issues in the field of education research through a major analytical contract to conduct research on crosscutting education statistics data.

Education Statistician

1991-2000

National Center for Education Statistics

U.S. Department of Education

Washington, DC

Supervised and managed a \$3 million contract to conduct quick turnaround surveys on topics in elementary and secondary and post-secondary education. Served as Project Officer for several Fast Response surveys on key policy relevant issues in elementary and secondary education, such as school violence and Internet access in schools, from the initial stages of questionnaire development, through data collection and reporting. Provided extensive review of questionnaire and report drafts, served as co-author on survey reports, coordinated peer review of reports, and managed the final release process and dissemination. Conducted research on the school experiences of urban disadvantaged youth as a co-author of a unique analytical study, drawing data from several NCES surveys. Provided technical review of selected NCES reports and policy briefs at the program and division level for the Data Development Program and the Data Development and Longitudinal Studies Division. Supervised a contract task to conduct a large-scale international comparative education finance study designed to clarify reporting discrepancies between nations and derive more accurate and comparable estimates through extensive bilateral consultations. Coordinated different international statistical activities of NCES staff, including organizing symposia on international education statistics accepted by two major education research organizations.

Other Employment**Social Science Analyst**

Pinkerton Computer Consultants

Alexandria, VA

Under contract to the National Center for Education Statistics (NCES). Analyzed and interpreted data on elementary and secondary schools and staff, generating data tables for NCES survey release reports. Conducted analyses on the confidentiality of respondents participating in the 1987-88 Schools and Staffing Survey (SASS) of NCES for disclosure review. Independently performed experimental analysis of item non-response on the Teacher Demand and Shortage component survey of the SASS. Served as a technical consultant for NCES staff on the interpretation of computer-generated statistical data. Improved quality control of statistical reports by introducing electronic data techniques to replace existing system of manual production of data tables. Co-authored methodology paper "Why is Complex Sample Variance Estimation Needed?" presented April 1990 at the American Education Research Association Conference

Deputy Project Manager

The Pragma Corporation
Falls Church, VA

Under contract to the U.S. Agency for International Development, Economic and Social Data Services (ESDS). Supervised a staff of five persons to produce the economic and social data pages, regional summaries, and statistical analysis appendix of A.I.D.'s annual presentation to U.S. Congress. Conducted critical technical review of the statistical content of these reports for the Agency before submission to Congress. Maintained the Agency's economic and social database through coordination with statistical offices of major international organizations, including the World Bank and the International Monetary Fund. Worked with senior A.I.D. management on policy statements and position papers. Provided needs assessment for statistical data for A.I.D. offices in Washington and overseas.

Social Science Analyst

Price, Williams, and Associates
Silver Spring, MD

Under contract to the U.S. Agency for International Development, Economic and Social Data Services (ESDS). Produced economic and social data pages, regional summaries, and statistical analysis appendix of A.I.D.'s annual presentation to U.S. Congress. Coordinated data acquisition from the World Bank for the Agency's social statistics database. Conducted statistical and economic analysis of data on U.S. aid-recipient countries, with a particular focus on development finance and social indicators of development.

Foreign Affairs Analyst

Congressional Research Service
Washington, DC

Foreign Affairs and National Defense Division (FAND). Served as a research analyst through a competitive post-graduate internship. Created a computer data base and produced a report describing the roles of over 200 individuals involved in the Iran-Contra affair for use by Members and committees of Congress. Completed time-sensitive research requests on foreign affairs issues, primarily on U.S. foreign economic and military assistance, and the Soviet Union.

EDUCATION

2006 Certificate in Statistical Science

2001-2006 Joint Program in Survey Methodology
University of Maryland, College Park

Completed a Post Graduate Certificate in Statistical Science as an advanced special student in the Graduate school program in Survey methodology joint between the University of Maryland and the University of Michigan, Ann Arbor MI. Completed over 30 hours of graduate studies in mathematics, mathematical statistics, survey sampling and sample design, variance estimation, statistical measurement error models and inference from complex surveys, and statistical methods used to analyze disclosure risk.

Masters, International Affairs

School of International and Public Affairs
Columbia University
New York, NY

B.A., International Relations, and Russian Language

School of Letters and Sciences
University of California, Davis
Davis, CA

Additional Academic Study

Georgetown University. Completed one full semester of Calculus II 2002

Completed intensive Russian language courses in the Soviet Union, through the University of Washington.

Completed intensive Russian Language courses at The Monterey Institute of International Studies.

PUBLICATIONS

Burns, S., Wang, X. and Henning, A. (Eds.) (2011). NCES Handbook of Survey Methods (NCES 2011-609). U.S. Department of Education, National Center for Education Statistics, Washington, DC: U.S. Government Printing Office.

Levin, D., Hurst, D., Burns, S. (2000). Computer and Internet Access in Private Schools and Classrooms: 1995 and 1998 (NCES 2000-044). Washington, DC: National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education.

Heaviside, S., Rowand, C., Williams, C., Farris, E., Burns, S. (1998). Violence and Discipline Problems in U.S. Public Schools: 1996-97 (NCES 98-030). Washington, DC: National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education.

Lippman, L., Burns, S., McArthur, E., Smith, T., Burton, R., Kaufman, P. (1996). Urban Schools: The Challenge of Location and Poverty (NCES 96-184). Washington, DC: National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education.

Bobbitt, S., Faupel, E., Burns, S. (1991). Characteristics of Stayers, Movers, and Leavers: Results from the Teacher Followup Survey, 1988-89 (NCES 91-128). Washington, DC: National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education.

USAID. (1989). Development and the National Interest: U.S. Economic Assistance into the 21st Century. US Agency for International Development.

CRS. (1987). The Iran/Contra Affair: Biographical Profiles (Congressional Research Service Report Number 339R).

PROJECT OFFICER - STATISTICAL STUDIES

Handbook of NCES Survey Methods 2013 and continuing as website with rolling updates.

Handbook of NCES Survey Methods 2011. Burns, S., Wang, X. and Henning, A. (Eds.) (2011). NCES Handbook of Survey Methods (NCES 2011-609). U.S. Department of Education, National Center for Education Statistics, Washington, DC: U.S. Government Printing Office.

Customer Satisfaction Survey, 2010 American Customer Satisfaction Index (ACSI) conducted by CFI Group for NCES.

Customer Satisfaction Survey, 2008 American Customer Satisfaction Index (ACSI) conducted by CFI Group for NCES.

Teitelbaum, P., Kaufman, P. (2002) Labor Market Outcomes of Non-College Bound High School Seniors (NCES 2002-126). Washington, DC: National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education.

Fitzgerald, R. (2000). College Quality and the Earnings of Recent College Graduates (NCES 2000-043). Washington, DC: National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education.

Barro, S., Sherman, J. (1997). International Education Expenditure Comparability Study: Final Report, Volumes I and II (NCES Working Paper No. 97-16).

PROJECT OFFICER - FAST RESPONSE SURVEYS (FRSS)

Survey of Arts Education in U.S. Public Elementary and Secondary Schools: Fall 1999/Survey of Music and Visual Arts Specialist Classroom Teachers: Spring 2000 (FRSS 67/77).

Advanced Telecommunications in U.S. Private Schools: 1998-99 (FRSS 68).

Survey of Internet Access in Public Schools: Fall 1999 (FRSS 75).

Survey of Public-School Teachers Use of Computers and the Internet, 1999 (FRSS 70).

Survey of Internet Access in Public Schools: Fall 1998 (FRSS 69).

Survey of Internet Access in Public Schools: Fall 1997 (FRSS 64).

Survey of Advanced Telecommunications in U.S. Public Elementary and Secondary Schools: Fall 1996 (FRSS 61).

Survey of Nutrition Education in Public Elementary School Classrooms, K-5 (FRSS 60).

State Survey on Racial and Ethnic Classifications (FRSS 59).

Parent Involvement in Children's Education: Efforts by Public Elementary Schools (FRSS 58).

Survey of Advanced Telecommunications in U.S. Private Schools, K-12: Fall 1995 (FRSS 56).

Teacher Survey on Education Reform in Public Elementary and Secondary Schools (FRSS 55).

Principal Survey on Education Reform in Public Elementary and Secondary Schools (NCES FRSS 54).

PRESENTATIONS

Coordinator of NCES/Westat Statistical Disclosure Limitation - DataSwap Software Workshop, October 18, 2012

Coordinator of NCES/NISS Workshop on Disclosure Avoidance and Data Protection, November 17-18, 2011.

Smerdon, B., McArthur, E., Rowand, C., Burns, S. (April 2000). Issues and Implications for Increasing the Use of Computers in K-12 Education: A National Perspective. Panel presentation at the annual meeting of the American Educational Research Association, New Orleans, LA.

Griffith, J., Binkley, M., Owen, E., Peak, L., Burns, S (organizer). Large-scale Comparative Education Projects - A U.S. Perspective. (March 1992). Panel presentation at the annual conference of the Comparative and International Education Society, Annapolis, MD.

Griffith, J., Binkley, M., Owen, E., Peak, L., Burns, S. (organizer). Developing a Program of International Education Indicators. (April 1992). Panel presentation at the annual meeting of the American Educational Research Association, Chicago, IL.

McMillen, M., Burns, S. (April 1990). Why is Complex Sample Variance Estimation Needed? Paper presented at the annual meeting of the American Educational Research Association, Washington, DC.

PROFESSIONAL DEVELOPMENT

Regular attendance at relevant seminars, workshops, and webinars on statistical and survey methodology (approximately four per year since 2004).

Survey Management: Attended numerous short courses (1-3 days) on: sample design and cognitive and communicative aspects of survey measurement, statistical analysis, data confidentiality and statistical disclosure limitation since 1991.

Annual attendance at the Federal Committee on Statistical Methodology Conference and Policy Meetings (since 2004).

Statistical Software: Courses on Programming: SAS beginning through advanced techniques through the SAS Institute; the use of Sudan, WesVar, R and AM statistical software for complex variance estimation.

Contract management: Biannual recertification after initial training completed for certification completed over the past 20 years through the U.S. Department of Education.