Network Sampling Developments in Survey Research During the Past 40+ Years

Monroe G. Sirken
National Center for Health Statistics

PROLOGUE

Just before Tim Johnson invited me to participate in the 40th anniversary of the Survey Research Laboratory, I had finished reading the delightful book by Robert Merton and Elinor Barber, *Travels and Adventures of Serendipity* (2002). The book traces serendipity—the word and concept—from its birth in 1754 through 1958 with an after-foreward written by Dr. Merton in 2001, the year before his death. In the book's preface, Robert Shulman describes serendipity in the following way.

> *Serendipity can be about finding something of value while seeking something entirely different or it can be about finding a sought-after object in a manner where it is not at all expected.*

I have had the good luck and pleasure to experience both kinds of serendipity while conducting network sampling research intermittently over the past half century.

The Merton/Barber book gave me the idea of presenting a historical review of network sampling and taking the liberty of talking personally about my relationship with the technique so that I could describe firsthand the important role of serendipity in its origins and evolution. This paper is a revision of the talk I gave last September at the Survey Research Laboratory.

INTRODUCTION

Network sampling is a technique that assures unbiased estimation when the same observation units are eligible to be counted at (linked to) multiple selection units in the survey (Sirken, 1977). Strictly speaking, network sampling is not a sampling technique because it does not specify the rules for selecting a sample. Network sampling is applicable to all sample designs when the counting rule of the survey links multiple selection units to the same observation units.

The counting rule is an essential but largely neglected design feature of surveys that specifies the conditions for linking observation units to the selection units at which they are enumerable in the survey (Sirken, 1973). It configures the linkages between observation units and selection units. The set of observation units linked to the same selection units is a cluster, and the set of selection units linked to the same observation units is a network. The number of selection units linked to an observation unit network is the multiplicity of the observation unit. The same observation unit may be linked to more than one cluster but is linked to one and only one network. Counting rules have sampling error effects because they determine the ways that observation units are distributed over clusters and networks, and they have measurement error effects because they specify the selection units at which the observation units are eligible to be enumerated.

Conventional sampling applies when surveys use unitary counting rules that link each observation unit to one and only one selection unit at which it is enumerable. For example, the de jure place of residence rule that links each person to his or her usual place of residence is a unitary counting rule widely used in household surveys. Network sampling is applicable when the survey uses a multiplicity counting rule that permits the same observation units to be enumerable at multiple selection units. For example, the self/sibling counting rule in household surveys is a multiplicity rule that links each person to his or her own de jure residence and to the de jure residences of the person's siblings.

Flexibility with respect to network size provides network sampling with design options that are potentially useful in addressing survey design problems that challenge conventional sampling. That is certainly the case when multiple selection units are unavoidably linked to the same selection units. Of perhaps greater strategic importance, network sampling can be deliberately fostered as a survey strategy to improve survey efficiency when conventional sampling results in large sampling and/or measurement errors. For example, network sampling is usually more efficient than conventional sampling in household surveys (1) of rare populations, because

opportunities are enhanced of distributing individuals more uniformly over households by multiplicity rules than unitary rules; and (2) of elusive and sensitive populations, because they are usually hard to enumerate at their usual places of residence.

Network sampling does not come pro bono. The network sampling estimator requires knowing the multiplicities of observation units reported in the sample survey—information not required by the conventional sampling estimator because the multiplicity of every observation unit equals one. Even though the multiplicities are usually reported by the same respondents that report the observation units in the survey, supplementary data collection adds somewhat to the survey costs. A more serious consequence than the incremental cost of collecting the multiplicities is the risk of response errors in reporting the multiplicities. Thus, network sampling is not a panacea for dealing with survey design problems that challenge conventional sampling, but when used judiciously and selectively, it has the potential to improve survey design efficiency of population and establishment sample surveys.

HISTORICAL OVERVIEW

It is convenient to divide the history of network sampling into two periods. *Period I: The Emergence of Network Sampling*, covers the 35-year interval (1958–83) during which network sampling emerged as a serendipitous consequence of an unexpected finding in a medical provider survey of disease prevalence. *Period II: The Emergence of Linked Population/Establishment Survey* covers the 20+-year interval since 1983 during which new applications of network sampling emerged as a serendipitous consequence of an unexpected solution to a problem in integrating the sample designs of establishment and population surveys. In each period, historical events are presented in the chronology of these four stages of serendipity process:

- **Stage 1.** Research directed toward one objective leads to an unanticipated anomalous finding or an unanticipated surprising solution.
- **Stage 2.** The unanticipated finding or solution stimulates research to fit the new datum into a broader frame of knowledge.
- **Stage 3.** The research initiated by the unanticipated finding or solution fosters ideas for new theory or technology.
- **Stage 4.** The proposed new theory or technology is applied and tested experimentally.

Period I:
The Emergence of Network Sampling (1959–83)

■ *Stage 1. The unexpected finding*

In 1959, a pilot of a national stratified survey of physicians and hospitals was conducted in three New England states to estimate the prevalence of medically diagnosed cases of cystic fibrosis (Kramm, Crane, Sirken, & Brown,

1962). Cystic fibrosis, a relatively rare genetic disease of childhood, had been identified as a distinct entity in the mid 1930s and in the late 1950s; when the survey was conducted, diagnostic tests were still relatively crude and test results often ambiguous. The procedures by which the pilot survey sought to evaluate diagnostic validity yielded information that disclosed an unanticipated survey design problem.

Queried medical sources reported all patients they had treated for cystic fibrosis since 1952, identified each patient, and reported the patient's date of birth, sex, and the medical findings supporting the cystic fibrosis diagnosis. They also identified referral medical sources, if any, that treated each of their patients, and the referral sources were subsequently queried for supplementary diagnostic information about the patients. After the survey was completed, the diagnostic information reported by the original and referral medical sources was combined to assess the certitude of the cystic fibrosis diagnoses. In the assessment process, it was determined that the original sample of 1,600 medical sources had reported about 650 distinct cystic fibrosis patients and these patients had been treated by over 1,000 different medical sources. Unexpectedly, more than two-thirds of the patients had been treated by multiple medical sources. Unbiased estimation of cystic fibrosis prevalence was not a problem in the pilot survey because virtually all the cystic fibrosis patients were reported by medical providers in the certainty strata. Otherwise, this would have been a problem because matching to eliminate duplicate reports would be insufficient to ensure unbiased estimation.

■ *Stage 2. Research fostered by the unexpected finding*

Seeking a solution to the cystic fibrosis estimation problem set in motion a research effort to develop the sampling theory, then unavailable, that would be appropriate for designing medical provider surveys like the proposed national medical provider survey of cystic fibrosis, in which the same patients often are treated by multiple medical providers. The research yielded three unbiased estimators of the disease prevalence and the variances of two of the estimators (Birnbaum & Sirken, 1965). The multiplicity estimator, the simplest and most robust of the three estimators, counts the report of every patient in the survey and weights each report by the inverse of the patient's multiplicity. The multiplicity estimator does not require matching the patient reports for duplications and is unbiased if every patient is linked to at least one medical provider.

Curious about the efficiency of the multiplicity estimator, we studied the sample design effects of network sampling when compared to conventional sampling (Sirken, 1970). Here are selected findings: (1) the difference between the sampling variances of the multiplicity and conventional estimators depends on the configurations of linkages between selection and observation units that are formed by conventional and multiplicity counting rules; (2) network sampling is not necessarily

more efficient than conventional sampling for all linkage configurations but is likely to be more efficient than conventional sampling for most linkage configurations; and (3) network sampling is necessarily more efficient than conventional sampling when multiplicity counting rules produce specified kinds of linkage configurations.

The third finding was strategically the most important. For example, the research findings demonstrated that network sampling is necessarily more efficient than conventional sampling when none of the selection units is linked to multiple observation units by the multiplicity rules. When the average number of observation units per selection unit is small, the design effect of network sampling, the ratio of the multiplicity and conventional variances, always favors network sampling. For example, when the variance of the multiplicities is ignorable, say all multiplicities equal the positive integer **s**, the network sampling design effect is 1/**s**.

- ■ *Stage 3. Research findings foster ideas for network sampling*

Research on the design effects of network sampling highlighted the important role of counting rules in designing sample surveys and fostered ideas about ways to improve survey design by capitalizing on the design options of multiplicity counting rules. The implications of the research findings as they relate to unbiased estimation are straightforward—namely, network sampling is unbiased and conventional sampling is biased whenever multiple selection units are inadvertently or unavoidably linked to the same observation units. The implications of the research findings as they relate to the sample design effects of network sampling, though less transparent than those on unbiased estimation, are far more strategic. They inspired the notion of deliberately fostering network sampling in conventional household sample surveys of rare populations by using multiplicity counting rules that satisfy these conditions:

- **Condition 1.** The multiplicity of every individual is equal to or greater than one.
- **Condition 2.** Individuals are linked to households that are able and willing to report the multiplicities and the variables of interest about the individuals.
- **Condition 3.** The distribution of the multiplicities has large mean and small variance.

Condition 1 avoids coverage bias and usually is satisfied by using multiplicity rules that link individuals to their own households as well as other households. Condition 2 controls response; it is satisfied by using multiplicity counting rules that link individuals to households of relatives, friends, neighbors, and colleagues with whom they have close and well-defined relationships. Condition 3 improves sampling efficiency and usually is satisfied by using counting rules that distribute individuals as uniformly as possible over households.

The notion of fostering network sampling subsequently was extended to household surveys of elusive and sensitive populations that are hard to find and enumerate at their usual places of residence.

- ■ *Stage 4. Testing network sampling*

Often, counting rules that benefit sampling errors adversely affect non-sampling errors and vice versa. For example, the multiplicity counting rule that links every individual to every household eliminates sampling errors but would be totally impractical from the viewpoint of response errors.

During the 1970s and 1980s, survey experiments compared the sampling errors and response biases of conventional and multiplicity kinship counting rules in household surveys of rare population and events (Nathan, 1976; Czaja, Snowden, & Casady, 1986; Sirken, 1983). The experiments demonstrated that network sampling consistently improves sampling efficiency and sometimes reduces response bias as well. Even when network sampling increases response bias, it has the potential to reduce mean squared errors when sample size and prevalence rate are sufficiently small.

For example, the Survey Research Laboratory at the University of Illinois conducted a pilot household survey of the cost of cancer care (Warnecke et al., 1982) that investigated the sampling error and response bias effects of three counting rules in estimating cancer prevalence. Unknown to the interviewers, the household probability sample was embedded with households selected from Illinois cancer registries, and the completeness of reporting the cancer cases in the survey was determined by matching the survey reports of the embedded households with their cancer registry records. The experiment tested these counting rules by characteristics of patients and respondents:

- **Rule 1.** A unitary rule links cancer patients to their de jure residences,
- **Rule 2.** A multiplicity rule links cancer patients to their de jure residences and to the de jure residences of their siblings, and
- **Rule 3.** A multiplicity rule links cancer patients to their de jure residences and to the de jure residences of their children.

Multiplicity Rules 2 and 3 reduced the sampling errors of unitary Rule 1 by about 40% and 15% respectively (Czaja et al., 1986). On the other hand, the response bias of Rule 1 was more than doubled by Rule 2 and increased by more than a third by Rule 3. Nevertheless, for a cancer prevalence rate of about 2%, Rule 2 is more efficient than Rule 1 for sample sizes up to 600 and 2,100 respectively for all persons and for White females, and Rule 3 is more efficient than Rule 1 for survey sample sizes up to 2,100 and 19,000 respectively for all persons and for White females.

**Period II:
Emergence of Linked Establishment/Population Surveys (1983–present)**

■ *Stage 1. The unexpected solution*

About 1985, the NCHS initiated a research program to integrate the sample designs of its independently designed population and health care provider surveys by using the National Health Interview Survey (NHIS) as the master sampling frame (Sirken & Greenberg, 1983). Listings of NHIS households and persons served as the sampling frames of population surveys, and panels of the NHIS psu's served were selected in the health care provider surveys. In 1992, a panel of the Committee on National Statistics that was convened to review NCHS's plans to restructure its health care provider surveys proposed that integration of health care establishment surveys would be more efficient if linkages with NHIS occurred at the household level rather than at the psu level (Wunderlich, 1992). It recommended that NCHS investigate the feasibility and utility of using listings of health care providers visited and reported by NHIS households, instead of complete sampling frames that list all health care providers, as the sampling frames of its health care provider surveys. The panel's recommendation inspired a research project to investigate the design features of the Linked Establishment/Population Surveys (LEPS), an establishment survey that uses a population survey-generated sampling frame.

The LEPS is modeled as a two-stage network sampling household survey using a multiplicity counting rule that links transactions of establishments with all households to every household with whom the establishments have transactions. Households are first-stage selection units; transactions of establishments linked to first-stage households are the second-stage selection units. The error model yielded the expressions of the two-stage LEPS estimator and variance of the volume of transactions between providers and households (Sirken, Shimizu, & Judkins, 1995).

■ *Stage 2. Research fostered by the unexpected solution*

Successfully deriving expressions of the LEPS unbiased estimator and variance led to research comparing sampling efficiencies of the two-stage LEPS with the two-stage conventional establishment survey in which establishments are selected with probabilities proportional to size from a complete establishment sampling frame (Sirken & Shimizu, 2002).

Briefly, these are the major research findings. The LEPS and the conventional establishment survey sampling variances of equivalent expected establishment and transaction sample sizes are equivalent if and only if the transactions of the population that generates the LEPS sampling frame are distributed uniformly and every household has a single transaction. Deviations from the uniform distribution, whether because households do not have transactions and/or transactions are not uniformly distributed over the truncated population of households with

transactions, increase the LEPS first-stage variance component and virtually always makes it greater than the first-stage variance component of the conventional establishment survey. In two-stage sampling, the outcome is somewhat less tilted in favor of the conventional establishment survey because the second-stage component of variance favors the LEPS.

Despite its likely adverse sample design effects, the LEPS deserves serious consideration whenever it is infeasible or prohibitively expensive to construct or maintain freestanding sampling frames with reasonably complete coverage and good size measures relevant to the target populations and topics of the survey. From the cost perspective, the LEPS is particularly attractive when it can be piggybacked onto ongoing population and establishment surveys.

■ *Stage 3. Research findings foster LEPS applications in population surveys*

Researching the LEPS design effects in establishment sample surveys fostered the idea of applying the LEPS in population sample surveys of rare, elusive and/or sensitive populations, particularly when the survey's variables of interest are reported more accurately by establishments than by households (Sirken & Shimizu, in press).

Briefly, these are the major research findings. Sampling efficiencies of the two-stage LEPS and the single-stage conventional household sample survey of equivalent household sample size are equivalent if and only if the within-establishment component of variance is ignorable. Otherwise, the conventional household sample survey is virtually always less efficient than the single-stage LEPS and less efficient than the two-stage LEPS if the second-stage LEPS transaction samples sizes are sufficiently large. For example, if none of the households has multiple transactions, which is a transaction configuration likeliest to occur in surveys of rare populations, a second-stage LEPS sample size no larger than the number of transactions reported in the household sample survey is sufficiently large to assure that the LEPS is at least as sampling-efficient as the conventional household sample survey.

In summary, the LEPS has the potential to substantially improve the quality of conventional household survey estimates, particularly when the target populations are rare, and rare and elusive or sensitive populations that are hard to reach or enumerate at their usual places of residence, and establishments are good information sources for variables of interest in the survey.

■ *Stage 4. Testing LEPS*

To my knowledge, the LEPS has not been applied in health surveys. However, population survey-generated frames are being used in economic surveys and in surveys of organizations when comprehensive and reliable listings of all establishments are difficult to obtain or compile.

Population survey-generated frames are being used in economic surveys of business establishments to

estimate the population's expenditures for goods and services. For example, sampling frames of the CPI Pricing Survey, an ongoing survey of businesses conducted by the U.S. Bureau of Labor Statistics (BLS), are listings of retail establishments generated by the CPI Continuing Point of Purchase Survey, a national population sample survey that asks respondents to report their purchases and identify the merchants who sold the merchandise. However, BLS does not use the LEPS estimator (Leaver & Valliant, 1995).

Population survey-generated sampling frames are being used in surveys of religious congregations and employing and voluntary organizations (Kallenberg, Knoke, Marsden, & Spaeth, 1996). For example, sampling frames of surveys of religious congregations were generated by the 1992 and the 1998 General Social Survey that asked respondents to identify the religious congregations they attend (Chaves, 1999). Sociologists are increasingly using the LEPS estimator in surveys and refer to the technique of using population survey-generated frames of organizations as *multiplicity sampling* or *hypernetwork sampling*. They have noted that the LEPS has the potential of enriching the information about populations collected in household surveys (Marsden, 2003).

EPILOGUE: LOOKING BACK TOWARD THE FUTURE

Looking backward over the history of network sampling in survey research for guidance in predicting its future suggests that the future of network sampling, like most innovations in survey research, will depend on creatively using unanticipated anomalous findings and unexpected novel solutions to improve survey design. It seems to me that in the future, as in the past, network sampling will continue to be used in surveys when the same observation units are unavoidably linked to multiple selection units and when observation units are hard to find or enumerate using unitary counting rules of conventional sampling.

Regarding the role of serendipity in scientific research, it seems to me that Merton's model of the serendipity pattern in science is a close fit to the sequence of serendipitous events that led to the emergence and development of network sampling. I completely agree with Merton, who believes that understanding the circumstances favorable to science has the potential to increase scientific productivity. Thus, the more empirical evidence of how serendipity works, the greater the likelihood of cultivating serendipity for the good of science. I hope that the serendipity events in the history of network sampling reported here will contribute to that good.

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CURRENT RESEARCH

Further information on the studies described in this section should be obtained from the organizations conducting the studies at the addresses given at the beginning of each organization's listing. Neither Survey Research *nor the Survey Research Laboratory can provide this information. Study summaries are accepted by* Survey Research *with the understanding that additional information can be released to others.*

ILLINOIS

Survey Research Laboratory (SRL)
University of Illinois at Chicago
412 S. Peoria St., Sixth Floor, Chicago, IL 60607-7069
312-996-5300, fax: 312-996-3358 or
505 E. Green St., Suite 3, Champaign, IL 61820-5723
217-333-4273, fax: 217-244-4408
info@srl.uic.edu; http://www.srl.uic.edu

Best Practice Physical Activity Programs for Older Adults. This CAPI study, sponsored by the Robert Wood Johnson Foundation, is designed to determine whether community-based physical activity programs have a measurable impact on participants' health and well being. The organizations selected for study participation are in Madison, WI, Silver Spring, MD, and Raleigh, NC. Data are being collected from a previously sedentary volunteer sample of adults age 50 or older in Madison or age 55 or older in Silver Spring and Raleigh. Respondents are being interviewed at 3 points in time: baseline, 3-month, and 9-month. At each site, approximately ½ of all enrolled respondents were randomly assigned to the treatment (exercise) group and the other half to the control (nonexercise) group. Those assigned to the exercise group take part in a structured exercise program offered at least twice weekly by participating programs; each class addresses flexibility, strength training, and aerobic conditioning. Follow-up interviews are being conducted with currently-enrolled baseline respondents of both groups. The same questionnaire is being administered at each point of contact. *Project Coordinator:* Jane Burris.

2004–2005 Well Being Study. This is a statewide survey of caregivers, caseworkers, and children involved with the Illinois Dept. of Children and Family Services (DCFS) to assess the general well being of youth in DCFS care. To date, SRL has completed phone interviews with 413 caseworkers and 276 caregivers, and 158 in-home interviews with children age 7–17 using a combination of CAPI and ACASI technology. Another round of this study will take place in 2005–06. *Project Coordinators:* Ingrid Graf and Liz Clary.

Effects of Patenting on Research. This mail survey of biomedical researchers, conducted from October 2004 through February 2005, sought to investigate the effects of licensing and patenting on information sharing among researchers in academic, industry, goverment and non-profit settings. Completed questionnaires were returned by 655 respondents. *Principal Investigator:* John Walsh (Univ. of Illinois at Chicago), *Project Coordinator:* Lori Harmon.

Reactions to Oral Cancer Brochure. During December 2004, SRL conducted PAPI telephone follow-up interviews with 148 seniors. Previously, respondents had been interviewed in August in person at the Chicago Senior Fest. The study purpose was to gather their reactions to a public health brochure about oral cancer that had been distributed at the Senior Fest. *Principal Investigator:* Charles LeHew (Univ. of Illinois at Chicago), *Project Coordinators:* Ingrid Graf and Ron Hazen.

National Opinion Research Center (NORC)
University of Chicago
1155 East 60th St., Chicago, IL 60637
773-256-6000, fax: 773-753-7886
norcinfo@norcmail.uchicago.edu;
http://www.norc.uchicago.edu

National Immunization Survey (NIS). Sponsored by the Centers for Disease Control and Prevention (CDC), the NIS is designed to provide an ongoing, consistent means for estimating vaccination levels among children age 19–35 months in the U.S. and for disseminating this information to public health partners. The CDC initiated the NIS in 1994 in order to centralize the quarterly collection of standardized immunization coverage data for preschoolers in 78 Immunization Action Plan areas—non-overlapping geographic areas that include each of the 50 states, as well as 28 urban areas. To increase the accuracy and precision of the immunization data, the telephone interview obtains consent to contact the surveyed children's immunization providers. *Project Director:* John Thompson, *Associate Project Directors:* Marc Berk, Michele Koppelman, and Kirk Wolter.

Universal Screener Pilot Study. NORC is testing the feasibility and validity of a unified screening instrument to assess substance abuse and mental health disorders among incoming criminal defendants under the sponsorship of the government of the District of Columbia. *Project Director:* Phyllis Newton.

Organizational Variables in Drug Treatment Efficacy. NORC has completed work on this project under subcontract for NDRI, Inc., supported by a grant from the National Institute on Drug Abuse. NORC selected a clustered, stratified sample of 80 residential treatment units from a national frame and collected self-administered paper questionnaires from clients and staff plus summary file information. *Project Team:* Felicia Cerbone, Cassia Schmitz, Anne Fisher Evans, and Hee-Choon Shin.

General Social Survey (GSS). The GSS, an ongoing omnibus survey of adults living in households, is the data collection instrument of the National Data Program for the Social Sciences, a data diffusion project and a program of social indicator research. NORC recently completed 2004 GSS data collection.The questionnaire contains a standard core of demographic and attitudinal variables, plus certain topics of special interest selected for rotation. Items that appeared on national surveys between 1973 and 1975 are replicated. The exact wording of these questions is retained to facilitate time trend studies and replications of earlier findings. *GSS Director:* Tom W. Smith, *Project Director:* Natalie Suter.

Pathological Gambling Self-Test. As part of its work for the National Gambling Impact Study Commission in 1998–99, NORC developed a survey module to measure respondents' level and types of gambling-related problems in order to estimate who might be diagnosed with pathological gambling. Pathological gambling is a formal diagnostic entity described in the DSM-IV, on which the survey items were based. The module—the NORC Diagnostic Screen (NODS)—has been used as part of international research on gambling. In early 2004, NORC was asked to create a "self-test" version of the NODS that was posted on the Web site of the National Council on Problem Gambling. In 8 months, approximately 6,500 (anonymous) visitors to the site had scored themselves using it. *Project Directors:* Marianna Toce Gerstein, Dean Gerstein, and Rachel Volberg.

INDIANA

Center for Survey Research (CSR)
Indiana University
1900 E. Tenth St., Bloomington, IN 47406-7512
812-855-2821, fax: 812-855-2818
csr@indiana.edu; http://www.indiana.edu/~csr/

Indiana Business and Foundation Giving. Sponsored by the Indiana Univ. Center on Philanthropy and funded by the Indiana Chamber of Commerce and the Indiana Grantmakers Alliance, this was a mail, fax, and Web study of philanthropic giving by businesses and foundations in Indiana conducted in summer 2004. All organizations were offered the option of responding via a Web version of the questionnaire. Interviews were completed with 103 businesses and 234 foundations. *Principal Investigator:* Patrick Rooney, *Project Manager:* Kathleen Matthews.

Indiana Poll 2004. The purpose of this phone survey of Indiana adults age 18 or older was to provide an accurate measurement of public opinion on issues of interest to the general public, policymakers, and social scientists. The topics were news media (radio, television, newspapers, and online sources) and the 2004 election, objective reporting on political issues and the television news media,

2004 election voter trends, gambling, and religion and homosexuality. *Project Director:* John Kennedy, *Project Manager:* Kellie Mcgiverin-Bohan.

KANSAS

Survey Research Center (SRC)
Policy Research Institute
University of Kansas
1541 Lilac Lane, 607 Blake Hall, Lawrence, KS 66044-3177
785-864-3701, fax: 785-864-3683
pri@ku.edu; http://www.ku.edu/pri

Environmental Risk Assessment. SRC will complete approximately 1,000 CATI interviews with adult Minnesota residents this summer for the Minnesota Dept. of Health. Topics include health, pesticides, children, and food. *Principal Investigator/Project Coordinator:* Donald Haider-Markel.

Workforce Training Assessment. This spring, SRC will conduct approximately 250 CATI interviews of businesses in Douglas County, KS. Topics will include availability and adequacy of technical training, employee training needs, and other local hiring issues. *Principal Investigator:* Charles Krider.

MASSACHUSETTS

Center for Business Research
University of Massachusetts Dartmouth
285 Old Westport Rd., North Dartmouth, MA 02747-2300
508-999-8446, fax: 508-999-8646
nbarnes@umassd.edu; http://www.umassd.edu/cbr/

Economic Impact Analysis of the Arts and Crafts: Artists and Artisans. Approximately 170 telephone interviews with artists were completed this winter. Topics

included type of art produced, years of experience in their field, and annual income from their art. *Project Director:* Nora Ganim Barnes.

Economic Impact Analysis of the Arts and Crafts: Consumers. Approximately 120 face-to-face interviews were completed this winter with attendees at the annual fair in Orleans, Massachusetts. Topics included purchasing behavior at arts and crafts fairs, attendance at arts and crafts venues, and overall buying behavior. *Project Director:* Nora Ganim Barnes.

Center for Survey Research (CSR)
University of Massachusetts Boston

100 Morrissey Blvd., Boston, MA 02125-3393
617-287-7200, fax: 617-287-7210
csr@umb.edu; http://www.csr.umb.edu

Health Care Intensity Patient Survey. This project with Dartmouth Medical School, funded by the National Institute on Aging, has 2 nationwide data collections—a recently completed mail survey of physicians (outlined in an earlier issue) and telephone interviews with 3,200 Medicare beneficiaries. The goal of the project is to better understand the causes and consequences of geographic variation in per capita expenditures for Medicare beneficiaries. *Study Directors:* Patricia Gallagher and Floyd J. Fowler, Jr.; *Assistant Study Director:* Alison Hauser.

Health, Life, and Disability Insurance Issues Facing NMSS Members. This study is being conducted in collaboration with investigators from Harvard Medical School for the National Multiple Sclerosis Society (NMSS) to survey a national sample of 1,000 NMSS members under age 65 who have MS about their experiences with health, disability, life insurance, and related financial concerns. *Study Director:* Mary Ellen Colten, *Project Manager:* Carol Cosenza, *Assistant Study Director:* Kirk Larsen.

Information Technology, Job Skill Requirements, and Work Organizations. This project, funded by the National Science Foundation, is designed to better understand the skill requirements of jobs in America and how they are changing. The interview is being conducted with an RDD sample of 2,500 employed individuals residing in U.S. households. *Study Director:* Mary Ellen Colten, *Project Manager:* Carol Cosenza, *Assistant Study Director:* Kirk Larsen.

MICHIGAN

Survey Research Center (SRC)
Institute for Social Research

University of Michigan
P.O. Box 1248, Ann Arbor, MI 48106-1248
734-764-8354, fax: 734-647-4575
bpennell@isr.umich.edu; http://www.isr.umich.edu

Dioxin Exposure Study. The purpose of this project, being funded by Dow Chemical Co., is to determine the relationship between dioxin levels in soil, house dust, and residents' blood and to investigate other pathways of dioxin exposure. SRC hopes to complete 450 PAPI and 900 CAPI interviews in 5 Michigan counties. *Principal Investigators:* David Garabrant and Al Franzblau, *Project Manager:* Barbara Ward, *Production Manager:* Kathy LaDronka.

Study of Professional Development in Reading (PDR). The study of PDR compares 3 models of professional development. One focuses on improving knowledge about reading. The others add 1 or both of the following components: (1) learning to evaluate students' progress in reading and (2) learning to work effectively with other teachers on the teaching of reading. Participants include approximately 125 teachers and 2,750 students in first-grade classrooms in up to 100 public schools across Michigan. Data collection is occurring 3 times yearly during a 2-year period (2003–04 and 2004–05 school years) and includes a teacher's mail questionnaire, face-to-face classroom observation and post-observation forms, and face-to-face student assessment using the Dynamic Indicators of Early Literacy Skills and the Iowa Test of Basic Skills (conducted once each spring). The Institute for Educational Sciences and the U.S. Dept. of Education are funding the study. *Principal Investigator:* Joanne Carlisle, *Production and Project Managers:* Barbara Homburg and Meredith House.

MINNESOTA

Minnesota Center for Survey Research
University of Minnesota

2331 University Ave. S.E., Suite 141, Minneapolis, MN 55414-3067
612-627-4282, fax: 612-627-4288
armso001@umn.edu
http://www.cura.umn.edu/programs/mcsr.html

2004 Minnesota State Survey. This was the 21st annual omnibus survey of Minnesota adults. From September to November 2004, RDD CATI interviews were completed with 806 adults. The survey was sponsored by government agencies and the Univ. of Minnesota and addressed quality of life, arts and culture, volunteerism, nonprofits, employment, health, traffic safety, disposal of TVs and monitors, and private gun sales. *Project Manager:* Pam Jones, *Study Director:* Rossana Armson.

2005 Twin Cities Area Survey. This was the 22nd annual omnibus survey of adults residing in the 7-county Minneapolis-St. Paul area. A total of 805 RDD CATI interviews were completed between October 2004 and January 2005. The survey was sponsored by government agencies and the Univ. of Minnesota and addressed quality of life, awareness of programs, United Way, public television, and transportation. *Project Manager:* Pam Jones, *Study Director:* Rossana Armson.

Wilder Research Center
Amherst H. Wilder Foundation

1295 Bandana Blvd. N., Suite 210, St. Paul, MN 55108
651-647-4600, fax: 651-647-4623
research@wilder.org; http://www.wilder.org/research

Scouting Programs Study. Wilder Research is conducting a survey for the Boy Scouts: Voyageurs Council of Northern Minnesota and Wisconsin to help gauge the impact of scouting programs on young people. An SAQ will be sent to 200 scout leaders and volunteers to learn what effect scouting has had on the boys in their units. Also, PAPI phone interviews will be conducted with 150 scouts and their parents. Data collection will take place through spring 2005. *Principal Investigators:* Greg Owen and Nicole Martin, *Survey Coordinator:* Dan Swanson.

At-Risk Minority Youth Study. Wilder Research is working with Our Children: Our Future, an organization seeking to reduce the disparities in out-of-home placement, especially for African-American and American Indian children. Wilder will conduct 80 CATI interviews with professionals in law enforcement, education, the judiciary system, and the medical field from throughout Minnesota. They will be asked their opinions about the causes of racial disparities and how the disparities might be reduced. *Principal Investigator:* Nicole Martin, *Survey Coordinator:* Cheryl Bourgeois.

NEW YORK

The Stony Brook Center for Survey Research
Dept. of Political Science
SUNY at Stony Brook

Social and Behavioral Sciences Building, 7th Floor, Stony Brook, NY 11794-4392
631-632-4006, fax: 631-632-1538
survey_research@sunysb.edu;
http://ws.cc.stonybrook.edu/surveys/

Where Do We Grow From Here? Land Use on Long Island. The Stony Brook Center completed 1,400 CATI interviews (with an oversample of 200 African Americans and 100 Latinos) with residents of Long Island, New Jersey, and northern suburbs of New York and Connecticut from July to August 2004 for the Rauch Foundation. Topics included quality of life issues on Long Island, NY, such as preservation of open space, housing problems, and support for affordable housing policies. *Principal Investigator:* Leonie Huddy, *Project Coordinator:* Linda Pfeiffer.

NORTH CAROLINA

Social and Statistical Sciences
Research Triangle Institute (RTI)

3040 Cornwallis Road, P.O. Box 12194, Research Triangle Park, NC 27709-2194
919-541-7008, fax: 919-541-7004
rak@rti.org; http://www.rti.org

Population Genetics Analysis Program: Immunity to Vaccines/Infections. Funded by NIAID, this project is designed to assess genomics and proteomics associated with immune response to vaccination. Approximately 2,000 participants in Kolkata, India, will be invited to participate in a brief clinical examination and given a vaccination against either typhoid or cholera. Blood and saliva samples will be collected at baseline, day 3, and day 28. Extensive genomics and proteomics laboratory analyses will be conducted. Results will be analyzed for association with good or poor response to vaccination. *Project Director:* Diane Wagener.

2004 National Prisoner Survey of Sexual Assault. Under a cooperative agreement with the Bureau of Justice Statistics, RTI is developing the methodology for measuring the prevalence of sexual assault among the adult incarcerated population in the U.S. Work includes development, testing, and evaluation of an ACASI instrument, a 2,500-case field test, and preparation of a national plan describing the methodology for conducting a National Prisoner Survey of Sexual Assault. *Principal Investigator:* Rachel Caspar, *Co-principal Investigator:* Chris Krebs.

Follow-Up Usability Testing of the Navy Performance Management System. RTI will conduct usability testing and focus group interviews with 45 active-duty Navy personnel at 3 test sites in a second iteration of usability testing for a prototype Web-based performance management/appraisal system. Usability testing, occurring onboard the USS Lake Erie Pearl Harbor, HI; Naval Station Newport, RI, and Naval Station Norfolk, VA, will evaluate system modifications made to the prototype system. Modifications were based on results and recommendations from the first iteration of testing. Navy Personnel Command is providing funding. *Principal Investigator:* Michael Schwerin, *Project Director:* Liz Dean.

Howard W. Odum Institute for Research in Social Science
University of North Carolina at Chapel Hill

Manning Hall, CB#3355, Chapel Hill, NC 27599-3355
919-962-3061, fax: 919-962-4777
bollen@email.unc.edu;
http://www2.irss.unc.edu/irss/home.asp

Public Perceptions of Childhood Obesity Prevention Interventions. This nationwide RDD CATI survey of 1,083 U.S. households was conducted in fall 2004 for researchers at RTI International. It measured public opinion about present and possible public health interventions aimed at reducing childhood obesity in the U.S. The survey included a methodological experiment studying survey sponsorship and participation rates. Survey results can be found at www.rti.org. *Project Manager:* Teresa Edwards.

Survey Research Center
Wake Forest University

2598B Reynolda Road, Winston-Salem, NC 27106
336-716-0950
ananda@wfu.edu

Underage Drinking Survey. Approximately 2,800 CATI interviews were completed in spring 2004 for the Office of Juvenile Justice and Delinquency Prevention. In spring 2005, approximately 400 follow-up CATI interviews will be completed. This study examines the beliefs, behaviors, and attitudes toward underage drinking among 14- to 20-year-old youth. *Principal Investigator:* Mark Wolfson, *Project Coordinator:* Ananda Mitra.

Winston Salem State University (WSSU) Cancer Study. Face-to-face interviews with African-American clinical patients in lower-income communities of Winston-Salem will be conducted in spring 2005. In a joint project with WSSU and Wake Forest Baptist Medical Center, African Americans will be interviewed at local clinics and in their local neighborhoods. The study hopes to gauge how to better serve this community and improve clinical satisfaction. *Project Coordinator:* Ananda Mitra.

Forsyth Tech Community College. CATI interviews were completed with approximately 400 respondents in winter 2004. The survey examined why potential students in the greater Winston-Salem community declined admission from the community college. The survey will serve as an instrument for Forsyth Tech to evaluate and improve their admissions process. *Principal Investigator:* Ananda Mitra.

PENNSYLVANIA

Institute for Survey Research (ISR)
Temple University

1601 N. Broad St., Philadelphia, PA 19122
215-204-8355, fax: 215-204-3797
lenlo@temss2.isr.temple.edu; http://www.temple.edu/isr

Child Care Subsidies Study. This study, supported by the William Penn Foundation and the Claneil Foundation, investigates the use of childcare subsidies after families' cash assistance (TANF) has been terminated. ISR will complete 450 telephone interviews with White, African-American, and Latino parents who have had their TANF terminated at least 60 days prior to entry into the study. Data collection began in March and ends in October. The study will determine childcare subsidy utilization rates among welfare leavers, obstacles to transition from welfare to subsidies, and the overall well-being of parents with and without subsidies. *Principal Investigators:* Anne Shlay and Marsha Weinraub (Temple Univ.), *Study Director:* Eric Foster.

School-Based Mentoring (SBM) Impact Study. The main goal of this study is to document the effects of program participation on youth and to better understand the pathways through which these benefits may accrue. SBM is funded through Public/Private Ventures with mentoring services provided by Big Brothers and Big Sisters. Approximately 70 schools at 10 sites around the country are participating in the program and study. The study is examining the effects of SBM on youths' school success, social skills, and behavior. Random assignment was used to construct treatment and comparison groups. Youth assigned to the treatment group were enrolled in the SBM and matched with a mentor. Those assigned to the control group will be matched with a mentor through SBM in January 2006. The impact of participating in the mentoring program will be evaluated using data from baseline and follow-up interviews administered to both groups in fall 2004, spring 2005, and fall 2005. Baseline data were collected using classroom-administered PAPI questionnaires, while teachers could complete a paper questionnaire, Web questionnaire, or Web-assisted phone interview. Mentors were not surveyed at baseline. Baseline surveys were administered to roughly 1,100 youths and 500 teachers. Both follow-up efforts include collecting data from participant and control group youth, teachers, and mentors. *Study Directors:* Sandy Gibson and Michael Barr.

Survey Research Center (SRC)
Pennsylvania State University

327 Pond Laboratory, University Park, PA 16802
814-863-0170, fax: 814-865-3098
src@ssri.psu.edu

PROSPER. Penn State and Iowa State Univ. are collaborating to develop community partnerships that strengthen families and help young people avoid substance abuse and behavioral problems. The PROmoting School/community-university Partnerships to Enhance Resilience (PROSPER) project is a 5-year interview project that involves about 6,000 youth in 14 communities throughout Pennsylvania. The SRC also is interviewing parents, educators, and community members participating in the program. *Project Manager:* Jan Baker.

The EC2000 Project. This study examines whether students educated in undergraduate engineering programs adopting new accreditation standards established by the Accreditation Board for Engineering and Technology, Inc. (ABET) are better prepared to enter the workforce as engineers in terms of 11 student learning outcomes than graduates of programs accredited under the previous set of standards. SRC is assisting with the management of this multi-year project by drawing a sample of institutions; constructing scannable questionnaires; programming Web instruments; mailing questionnaires to faculty, program heads, students, and alumni; developing and conducting a telephone survey of employers of engineering graduates in the sampled institutions; and providing database management. *Project Manager:* Kim Bodes.

TEXAS

Survey Research Program
George J. Beto Criminal Justice Center
Sam Houston State University

College of Criminal Justice, Huntsville, TX 77341-2296
936-294-1651, fax: 936-294-1653
icc_drl@shsu.edu;
http://www.shsu.edu/cjcenter/College/srpdex.htm

2004 Texas Crime Poll Special Legislative Survey.
The Texas Crime Poll was first completed in 1977 and has since been repeated annually, with multiple surveys completed in several of those years. The surveys provide legislators, public officials, and Texas residents with a reliable source of information about citizens' opinions and attitudes concerning crime and criminal justice-related topics. The 2004 Texas Crime Poll Special Legislative Survey involved a questionnaire mailed in October 2004 to 2,463 Texas households; 552 were returned completed. The report, data, and instrumentation, along with those from years past, are available at www.shsu.edu/cjcenter/College/srpdex/txpi.html. *Project Director:* Dennis Longmire, *Project Coordinator:* Robert Morris.

VIRGINIA

Center for Survey Research (CSR)
University of Virginia

P.O. Box 400767, 2400 Old Ivy Road, Suite 224,
Charlottesville, VA 22903-4827
434-243-5232, fax: 434-243-5233
surveys@virginia.edu; http://www.virginia.edu/surveys

Mining Population Characteristics. CSR conducted a pilot study of 45 mining operations for the National Institute of Occupation Safety and Health. The production study, to be conducted later, is designed to develop baseline data about mining population characteristics for U.S. mining operations. At this point, annual safety and health data are collected, but mine operator characteristics are not known. Thus, it is not possible to determine if certain groups in the mining population are more at risk than others. The pilot study was designed to test the survey protocol and questionnaire and to make recommendations for changes if indicated. *Project Director:* David Hartman, *Project Coordinator:* John Lee Holmes.

2004 Albemarle County Citizen Satisfaction Survey.
CSR completed phone interviews with 707 Albemarle County, VA, households in the summer of 2004. The survey assessed residents' opinions about quality of life in the county, satisfaction with the government's efforts to achieve its strategic planning goals, satisfaction with a number of county-provided services, and opinions about the way the county is managing growth. *Project Director:* Tom Guterbock, *Project Coordinator:* Anna MacIntosh.

2004 Prince William County Citizen Satisfaction Survey. For the 12th consecutive year, CSR conducted a citizen satisfaction survey for Prince William County, VA. The annual survey measures resident perception of overall quality of life and assesses satisfaction with county-provided services. Telephone interviews with 1,414 residents were completed in April and May 2004. *Project Director:* Tom Guterbock, *Project Coordinator:* Monnica Williams.

Ethical Practices Among Nurse Practitioners and Social Workers. A self-administered instrument in paper and Web formats was completed by 1,489 social workers and 817 registered nurses. The survey, sponsored by the National Institutes of Health, assessed the ethical issues that respondents encounter in their practice as well as the resources available to help them deal with these issues. *Principal Investigator:* Connie Ulrich, *Project Director:* Tom Guterbock, *Project Coordinator:* Ryan Hubbard.

2004 Survey of Local Government Officials in Virginia. In July 2004, 447 local officials representing a cross-section of VA cities, counties, and towns completed a Web instrument. The respondents included several types of officials, such as treasurers, commissioners, supervisors, clerks, city councilors, sheriffs, and a few

Commonwealth's Attorneys. Questions addressed ranking of goals for local government and ratings of services provided by their own office and by others in local government, as well as lists of challenges faced by public servants. *Project Director:* Tom Guterbock, *Project Coordinator:* John Lee Holmes.

CANADA

Institute for Social Research (ISR)
York University

4700 Keele St., Toronto, Ontario M3J 1P3, Canada
416-736-5061, fax: 416-736-5749
isrnews@yorku.ca; http://www.isr.yorku.ca

2005 Ontario Student Drug Use Survey. A biennial study of student awareness and use of alcohol, tobacco, and other drugs was initiated in 1977 by the Centre for Addiction and Mental Health (CAMH). In 2005, ISR will conduct its 13th wave of this study for the Centre. The survey will be administered in classrooms across Ontario to more than 6,000 students in grades 7–12 between January and May 2005 in both official languages. This comprehensive strategy facilitates comparisons between Canadian and American studies; provides information on the critical age patterns associated with smoking, drinking, drug use, and physical and mental well being; and allows for an analysis of the effects of classes and schools on student behavior using multilevel models. *CAMH Principal Investigators:* Edward Adlaf and Angela Boak, *Project Director:* John Pollard.

Ontario Institute for Studies in Education (OISE) Provincial Education Survey. OISE, now amalgamated with the Univ. of Toronto, has been undertaking a provincial education survey every 2 years since 1978. This 15th wave of the study examined Ontarians' attitudes toward the education system in general and their feelings about recent changes in education policy. This CATI survey was conducted with approximately 1,000 randomly selected residents across all regions of the province in fall 2004. *Principal Investigators:* David Livingstone and Doug Hart (OISE), *Project Director:* David Northrup.

Social Change and Well-Being Survey: Aboriginal Oversample. A study exploring the economic, social, and political factors that shape public policy and how these policies determine societal values, attitudes, and well being among individuals and communities was conducted through the winter of 2005. Forming part of a larger national project, this study sought to interview approximately 600 Aboriginal Canadians, living both on and off reserve in the Western provinces. The larger study was conducted on behalf of a group of university researchers led by Richard Johnston of the Univ. of British Columbia. *Principal Investigators:* Ravi Pendakur (Social Development Canada) and John Clement (Indian and Northern Affairs Canada), *Project Director:* John Pollard.

GERMANY

ZUMA-Center for Survey Research and Methodology

P.O. Box 122155, 68072 Mannheim, Germany
49-621-1246-0, fax: 49-621-1246-100
zuma@zuma-mannheim.de; http://www.gesis.org/en/zuma

ESS Round 3. Funding for the design and coordination of Round 3 of the ESS has been approved by the European Commission. Calls for multinational questionnaire design teams of researchers were announced in early 2005. Each team selected will work closely with the Central Coordinating Team on design of the rotating modules of the questionnaire. Fieldwork for Round 3 is scheduled for September 2006. *Central Coordinating Team Leader:* Roger Jowell.

✦ PERSONNEL NOTES

Survey Research *reports on the new appointments and promotions of professional staff at academic and not-for-profit survey research organizations, as well as those of the for-profit organizations that are patrons of the newsletter.*

At the Center for Survey Research (CSR) of the Univ. of Virginia, with **Robin Bebel** on medical leave, **David Hartman** has been the Acting Assistant Director. Hartman has served CSR for many years in a consulting capacity as a research scientist with extensive experience in statistical analysis and marketing. **John Lee Holmes** has been Acting Senior Research Analyst, and **Paul Miller** recently joined the staff as a full-time Research Analyst.

Susan Mitchell joined RTI's Survey Research Division in the Washington, DC, office as a Senior Research Survey Specialist and Assistant Division Director. At the Survey Research Division in the Atlanta office, **Scott Holmberg** has been named a Senior Research Epidemiologist, **Nedra Whitehead** is a Senior Genetic Epidemiologist, and **Laura Blankenship Strange** is a Research Clinical Studies Specialist. **George Ghneim** joined RTI's Survey Research Division in the Research Triangle Park office as a Research Epidemiologist. **John Joseph Konczyk** joined RTI's Research Computing Division in the Rockville office as IT Manager.

Christof Wolf joined ZUMA as scientific director in October 2004. The German Microdata Lab at ZUMA gets new support from **Andrea Janßen, Andrea Lengerer, Julia Schroedter,** and **Hossein Shahla**. **Annette Kohlmann,** former German Microdata Lab specialist at ZUMA, has joined the research data centre of the

German Institute for Employment Research as director. ZUMA is pleased to announce that **Peter Ph. Mohler**, director of ZUMA, has been elected into the Rat für Sozial- und Wirtschaftsdaten. The aim of this council is to improve and intensify the synergie effects concerning data utilization between social and economic research and official statistics.

At the Center for Survey Research at Indiana Univ., **Dom Powell**, **Andrew Davis**, and **Kellie McGiverin-Bohan** have been promoted from project assistants to project managers. **Xinye Tom Wang** and **Andrew Hill** have joined our staff as computer programmers.

JOB OPPORTUNITIES

This section contains listings of employment opportunities in survey research organizations. Listings can be sent to the editors at the address in the newsletter or e-mailed to krish@srl.uic.edu. Survey Research *does not charge a fee for these postings.*

NORC, a national organization for research affiliated with the Univ. of Chicago, is looking for **statisticians, survey methodologists, statistical programmers, data managers, project directors,** and **social scientists** with advanced training or experience in survey research or survey operations. New staff will be based in our Chicago or Washington, DC offices. To find out more about NORC and to apply for employment, visit www.norc.org/careers. NORC is an affirmative action, equal opportunity employer that values and actively seeks diversity in the workforce.

The Survey Research Division of the Statistics, Survey and Computing Science Unit at RTI International is seeking a **Program Manager/Senior Survey Methodologist** for its Program for Research in Survey Methodology (PRISM). The ideal candidate will work closely with senior management to refine the vision of PRISM and increase the growth, visibility, and scientific stature of the Program and its staff. Other duties include management responsibility for 2–5 direct senior reports and indirect management responsibility for 15 methodologists (mentoring of junior and mid-level staff is a top priority); provide methodological consultation to current and proposed projects in the area of questionnaire design and data analysis; project responsibilities, including technical and budget management and/or roles as principal investigator or project director; significant responsibility for proposal development, frequently contributing to methodology, pretest, and analysis sections; marketing/business development, seeking to build relationships with current and future clients/partners/colleagues. A master's or Ph.D. in the field of statistics or a social science discipline is strongly preferred. Candidates should

have a minimum of 10 years experience in positions of increasing responsibility in survey research or a related field, with at least 5 years of experience in project management and proposal development. The ideal candidate will have advanced knowledge of the principles, processes, and methods of survey research and be recognized as a national expert in at least 1 methodological and/or substantive area. Finally, candidates should exhibit a track record of leadership, team building, and program development. We are an EEO/AA employer M/F/D/V. Submit resume at www.rti.org. For more information, contact Sheila Knight, Research Triangle Institute, P.O. Box 12194, Research Triangle Park, NC 27709, sknight@rti.org.

The Survey Research Division of the Statistics, Survey and Computing Science Unit at RTI International is seeking a **Program Manager/Senior Survey Research Specialist** for its Mental Health and Substance Abuse Program (MHSA). The ideal candidate will work closely with senior management to refine the vision of MHSA and increase the growth, visibility, and scientific stature of the program and its staff. Management responsibility will be for 2–5 direct senior reports and indirect management responsibility for approximately 25 survey professionals (mentoring of junior and mid-level staff is a top priority). We are also looking for a person to provide consultation to current and proposed projects in the area of mental health and substance abuse, survey design, quality control, and data analysis. Project responsibilities include technical and budget management and/or roles as principal investigator or project director. Other activities include significant responsibility for proposal development, marketing/business development, and seeking to build relationships with current and future clients/partners/colleagues. A master's degree or Ph.D. in the field of survey research or methodology, statistics, or a social science discipline is strongly preferred. Candidates should have a minimum of 10 years experience in positions of increasing responsibility in survey research and substance abuse/mental health research, with at least 5 years of experience in project management and proposal development. The ideal candidate will have advanced knowledge of the principles, processes, and methods of survey research and be recognized as a national expert in this substantive area. Finally, candidates should exhibit a track record of leadership, collaborative research, team building, and program development. We are an EEO/AA employer M/F/D/V. Submit resume at www.rti.org. For more information, contact Sheila Knight, Research Triangle Institute, P.O. Box 12194, Research Triangle Park, NC 27709, sknight@rti.org.

Temple Univ.'s Institute for Survey Research has openings for **Technical Support Specialists** who will work out of offices on the Philadelphia campus. The general purpose of this position is the design, review, and development of survey questionnaires using CASES software and the overall coordination of departmental operations from initial questionnaire design and development to data cleaning

and the final production of a cleaned data file at study end. May be responsible for a single large study or several small studies concurrently. Position requirements: bachelor's degree or equivalent work experience, coursework in social science or related field preferred; 2–3 years experience in survey or market research; demonstrated experience with CASES or similar CATI software package; experience with questionnaire design, data processing, and/or data analysis; SPSSx or similar statistical software experience helpful; ability to effectively present ideas orally and in writing; ability to think independently, creatively, logically, and under pressure. Generous benefit package including 403b and tuition remission. Respond to shine@temple.edu with a resume and cover letter.

The Center for Survey Research (CSR), Univ. of Massachusetts Boston, is seeking a **Senior Research Fellow**. CSR offers exceptional research opportunities for a person with a demonstrated interest in the methodological/statistical aspects of survey research. Projects cover a wide range of subject areas, with health-related studies particularly common. Many projects involve working collaboratively with other Center Fellows and/or faculty members at this or other universities. Position will likely include some role in teaching of survey methods and work with graduate students. Social science Ph.D. required. Applicant must

have demonstrated analytic skills and ability to develop funding for own research interests. Considerable survey methodology experience essential. Strong statistical skills highly desirable. Direct work experience with large-scale probability sample survey projects essential, preferably in a survey research organization. Potential to contribute to ongoing development and evaluation of data collection methods is a high priority. Competitive calendar-year salary commensurate with experience. EOE/AAE. Send vita to Director, Center for Survey Research, Univ. of Massachusetts Boston, 100 Morrissey Blvd., Boston, MA 02125.

MCIC is seeking a **Director of Research** to be the organization's methodological expert. S/he is the technical leader for MCIC's full range of research capabilities and has considerable external exposure, including revenue development responsibilities, particularly with projects that use MCIC's in-person surveying capabilities. The Director of Research reports to the Executive Director and participates in management team and board meetings as appropriate. The successful candidate will facilitate sample and questionnaire design, data analysis plan and reporting in all program areas; investigate and develop new technology options to improve efficiency and reduce costs; provide training and technical assistance to marketing staff on

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proposal development, research design, and analysis strategies; write methods/technical reports; advise staff in survey data collection, data reduction, data tabulation, programming, and data quality assurance; develop and manage research projects; maintain a general and responsive network to forums and individuals that afford opportunities to initiate new projects; develop a specific proactive portfolio of ideas, contacts, and contracted projects that employ or expand MCIC's internal research capabilities and products; develop proposals, prepare budgets, write research reports; manage projects to on-time completion at the budgeted cost, assembling and directing project teams; serve as MCIC spokesperson, present research findings, represent MCIC at committees, conferences, and other forums; design, monitor, evaluate, and revise MCIC procedures and technical options for conducting research; supervise production, use, and upkeep of tools for ongoing management of projects; implement systems/software/hardware for improving employee/project management, communication, planning, and productivity; and lead regular trainings and reviews of procedures for quality assurance and enhancement of internal project and management capabilities. Qualifications include Ph.D. or equivalent expertise and experience in a social science discipline. Strong methodological skills honed in a research environment. Good communication and interpersonal skills required for team and leadership aspects of the work. Certain projects may require some evening or weekend work. To learn more about MCIC, visit www.mcic.org. MCIC is an equal opportunity employer. To apply, please send your CV or resume to Search Committee, MCIC, 17 N. State St., Ste. 1600, Chicago, IL 60602, or e-mail to search@mcic.org

WESTAT is currently under contract to NCHS to conduct the National Health and Nutrition Examination Survey (NHANES), a multiyear nationwide survey that includes interviews in respondent homes and health examinations conducted in a Mobile Examination Center. The study is carried out by a field staff of more than 75 professionals who travel full-time across the U.S. to 15 counties per year. At this time, we are seeking a **Study Manager** who will have overall responsibility for activities at a site and directly supervise an office team of 3 persons and from 6-14 household interviewers. Teams work in 5 sites a year, remaining in each site for about 9 weeks. Ten years of demonstrated staff management skills required; bachelor's degree preferred. **Candidates must be available for full-time continuous travel** (i.e., you go home only twice a year: 8-10 days in the summer and 8-10 days in December). Benefits include competitive salary, bonuses, individual lodging/car, travel and living expenses, two paid vacations per year, paid holidays, ESOP, 401K; subsidized health insurance is available. If interested, please contact 800-937-8284 (voice mail); 240-314-7512 (fax), OR beverlygeline@westat.com. For study information, visit www.cdc.gov/nhanes. EOE.

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