## THE CENTER FOR SURVEY RESEARCH

## CELEBRATING 50 YEARS

## AT

## UMASS BOSTON

## Brief History of The Center for Survey Research at UMass Boston

The origins of The Center for Survey Research go back to 1964, when the Combined Jewish Philanthropies of Greater Boston (CJP) required information about the Boston area's Jewish population to plan social services. The only way to gather such information was through a special-purpose survey research effort, but no survey research facility existed locally that could undertake high-quality population surveys. Dr. Morris Axelrod, then with the Survey Research Center at the University of Michigan, was recruited by CJP to come to Boston and build an organization to collect the data.

The project for CJP expanded to collect comparable data on the total Greater Boston population for the United Community Services, then enlarged again to include an examination of the elderly population and their health social service needs. Dr. Axelrod's research operation grew accordingly.

The Combined Jewish Philanthropies kept the survey staff intact and made its services available to university scholars and community agencies on a cost-reimbursable basis. By 1968 it was clear that a new home was needed for the research facility. The Joint Center for Urban Studies of M.I.T. and Harvard University was interested in expanding its data collection capabilities. It also had a special interest in increasing the extent to which urban scholars associated with the Joint Center focused their attention on Boston. The addition of a survey research facility seemed an ideal way to make progress on both fronts. Thus, in 1968 the entire research staff assembled at the Combined Jewish Philanthropies was transferred to the Joint Center in Cambridge. The Director of the Joint Center at that time was Dr. Daniel Patrick Moynihan. When Professor Moynihan went to Washington to serve as Urban Affairs Advisor to President Nixon in 1969, Dr. Robert Wood was appointed Director of the Joint Center.

From 1968 to 1971, the survey research operation flourished at the Joint Center under the name of The Survey Research Program (SRP), performing several valuable research activities, including the initiation of Boston Area Surveys that collected baseline data about populations in Boston. SRP staff also coordinated and directed a ten-city study of citizens' responses to local government, city services, and taxes-one of the largest multicity studies on such topics done to date.

When Dr. Wood left the Joint Center in 1970 to become President of the University of Massachusetts, an agreement was worked out for moving the survey research facility to the University of Massachusetts. The University of Massachusetts Boston, with its mission of public service and applied research, provided a logical home for CSR, whose goals are largely consistent with those of the University. Thus, in 1971, under a new name, the Center for Survey Research was established as a Trust of the University of Massachusetts at Boston. Dr. Floyd J. (Jack) Fowler, Jr., who had been serving as Assistant Director when the program was at the Joint Center, was appointed Director.

> MISSION STATEMENT
> The mission of the Center for Survey Research is to maintain a full service, academic survey research operation with state-of-the-art research design, questionnaire development, sampling, data collection, and data analysis capabilities. Center staff are expected to conduct high quality applied and basic social science research. The Center has a goal of facilitating social science research by providing research assistance to faculty of our own and other universities, and to public and community agencies in the form of data collection and methodological consultation. An important part of the vision of the Center is that it is not tied specifically to a particular academic discipline nor committed to a particular area of research to the exclusion of others, but that it maintains its capacity to contribute to any area in which the use of survey research methods is appropriate. Senior staff at the Center have been expected to pursue their own research interests, as well as to collaborate and provide consultation and research services to others.

## RESEARCH ACTIVITES

Since its inception at UMass Boston, the Center has been part of $25-35$ projects a year: big and small covering a wide range of subject areas. Strategies for data collection include:

- In-person interviewing in people's homes
- Telephone interviewing
- Mail surveys
- Internet surveys
- Computer Assisted Telephone and Personal Interviewing (CATI and CAPI)
- Cell phone surveys using text messaging
- Internet surveys using panels

Topics have covered a wide range, but some of the most common subjects of our research include:
Health and medical care, including measuring treatment outcomes, studying medical decision making, understanding death and dying from various perspectives, measuring patient experience with medical care professionals, health risk behaviors among public school students, and examining variation in medical care delivery.

Crime and fear of crime, policing and gambling law enforcement, drunk driving, driving law enforcement

Housing, housing costs and quality of life in public housing projects, homelessness, and homeless shelters

Mental health, alcohol and drug use and abuse, access to and use of treatment services
Race relations, racial and ethnic disparities
Smoking and smoking cessation
Health Insurance, lack of health insurance, adequacy of health insurance, employer health insurance offerings

While some of our largest studies have used direct federal or foundation funding of CSR staff, most of our projects have been collaborative with city or state agencies or with researchers from other universities.

For example, Commonwealth of Massachusetts agencies that CSR has worked with include the following.

- Department of Public Health
- Department of Education
- Division of Medical Assistance (DMA)
- Division of Health Care Finance and Policy, now the Center for Health Information and Analysis (CHIA)
- Department of Housing and Community Development
- Department of Transitional Assistance
- Department of Revenue

We have also worked with researchers from countless local and national universities and research facilities including Harvard University, Massachusetts Institute of Technology, Boston University, Tufts University, Northeastern University, Dartmouth College, Brown University, Yale University, Johns Hopkins University, Research Triangle Institute, Mass General Brigham, and Boston Children's Hospital.

## Contributions to UMass Boston

The immense amount of research of national importance is one way the Center has helped to fulfill the mission of UMass Boston as a research university. The large number of projects we have done jointly with or for state and city agencies is another way we have provided service to the Commonwealth and the community that the university serves. In addition, the Center has contributed to the University more directly in three ways.

1. Providing consultation and carrying out well over a dozen surveys of students and alumni for the University's administration.
2. Collaborating with University faculty to help them conduct research into topics related to their areas of interest. Several specific collaborations are noteworthy.
a. CSR has been part of several projects carried out with the UMass Boston-DanaFarber/Harvard Cancer Center (DF/HCC) Partnership, a collaborative program of cancerrelated research with National Institutes of Health U54 funding.
b. CSR and the Center for Social and Education Development have had a long and productive span of joint projects focused on problems and policies related to children with special needs. Many of these projects have been funded by Special Olympics.
c. Consultation for the UMass Boston Center for Social Policy on their research project to assess student readiness for adult basic education and English for Speakers of Other Languages (ESOL) distance learning programs.
d. Consultation for the UMass Boston Offices of Community Partnerships and Faculty Development on their survey used to assess civic learning outcomes of UMass Boston students enrolled in the Civic Engagement Scholars Initiative (CESI), a professional development program promoting community engagement into courses.
e. Consultation with the Gaston Institute on several studies of the Latinx population in Boston and Springfield.
f. Consultation with the Institute for Asian American Studies on numerous surveys of Asian students at UMB and the Asian population in the Boston metro area.
3. Teaching. CSR staff members have taught courses and given lectures off and on in various UMass Boston departments, including Sociology and Public Policy and Public Affairs. In 2012, the Department of Sociology and CSR jointly launched a program to provide a Graduate Certificate in Survey Research with Philip Brenner serving as Director. Dr. Brenner split his time between the Department of Sociology and CSR. This 15-credit graduate certificate program is designed for survey research professionals working in the academic, governmental, nonprofit, and commercial research sectors. The program's focus is balanced to give students an appreciation of the theoretical foundations of survey methodology and proficiency in practical aspects of survey design.
CSR staff teach core courses that introduce students to the major areas of the field of survey research: sampling; data collection methods; question writing and questionnaire design; question evaluation and pretesting; post-survey processing; and analysis. Students can enroll in either the concentration within the graduate program in sociology or in the freestanding post-baccalaureate certificate program. In fact, the courses in the program have turned out to be of value to graduate students in many areas besides sociology, including nursing, exercise and health sciences, economics, global inclusion and social development, public policy, and environmental sciences.

## THE CENTER FOR SURVEY RESEARCH PROJECTS COMPLETED OVER 50 YEARS

In five decades, CSR has been part of well over 1000 research projects. Obviously, we cannot describe them all. What follows is a sampling of what we think were among the more interesting and important projects. They are listed generally in chronological order, starting at the beginning. However, themes and programs of research do not all fit neatly into time frames.

In addition, there have been innumerable publications based on research done by the Center with center staff as author or co-authors with collaborators. Again, we could not possibly list them all. What we have done is list some of the publications that did the best job of reporting results we consider particularly interesting or important.

When CSR first came to UMass Boston in 1971, most of the survey work was done by personal interviewing. The Center had a staff of 40 or so interviewers who visited people in their homes and interviewed them. Although most of the surveys were done in the Greater Boston area, the Center also conducted major surveys in Vermont, New Hampshire, Connecticut.

In the late 1970s and early 1980s, data collection protocols expanded. Telephone interviewing became the most popular way to do general population surveys, and CSR developed a large telephone interviewing capability. In time, mail surveys and surveys using the internet grew in popularity, and the Center started routinely using those modes as well.

Over the years, the methods for administering surveys have also changed. Sampling evolved to include random digit dialing of telephone numbers to address-based samples of households. Contact methods advanced to include in-person, telephone calls, mail, email, and text messages. Surveys can be administered by an interviewer or self-administered via mail, text, internet, or any combination thereof. CSR has designed and implemented surveys using all these methods to achieve the primary survey goalcollecting valid, reliable data. This element is common to all the studies described below.

One of the unique features of a survey research center is that its work can be applied to almost any topic. For most any societal problem or social policy issue, there is a need for more information about the populations involved or likely to be affected. The Center's agenda over the years has addressed a wide range of subject areas and problems. So, topics and methodologies varied widely in the portfolio of projects the Center took on.

The following is a sampling of that work. The order is roughly chronological, at least in terms of when the work started, though often programs of research extended over multiple decades. CSR staff names in citations are highlighted in bold text.

## JEWISH COMMUNITY SURVEYS

As described earlier, the Center for Survey Research has its origins in the Combined Jewish Philanthropies, which created a survey organization to do a 1965 survey of the Jewish community. In 1975, 1985, and 1995, CSR conducted large sample surveys in over 1000 Jewish households in Greater Boston to provide updated pictures of the community and how it was changing.

SMALL AREA VARIATION IN MEDICAL CARE
One of the first projects was a collaboration with Jack Wennberg. He had observed that the amount and kind of medical care delivered in different New England communities varied widely, which he
thought indicated doctors were practicing medicine very differently. His critics suggested that the differences had to reflect differences in the communities' health needs and access to care. CSR conducted surveys in 6 communities in Vermont and New Hampshire that differed greatly in the medical care they received, and the results showed that the populations in those towns were virtually identical with respect to factors that would affect the amount and kind of medical care they needed. Using these results, Wennberg went on to prove that small area variation in the way medicine was practiced was an international phenomenon, and his work has had a profound effect on thinking about health care delivery. This project was the first of a long collaboration with Wennberg and his colleagues.

> Wennberg JE, Fowler FJ Jr. A test of consumer contribution to small area variations in health care delivery. J Maine Med Assoc. 1977 Aug;68(8):275-9. PMID: 894131 .

Fowler FJ Jr, Barry MJ, Lu-Yao G, Wasson J, Roman A, Wennberg J. Effect of radical prostatectomy for prostate cancer on patient quality of life: results from a Medicare survey. Urology. 1995 Jun;45(6):1007-13; discussion 1013-5. doi: 10.1016/s0090-4295(99)80122-8. PMID: 7771002.

## CRIME CONTROL

Another major area of research in CSR's first decade was crime control. A large experiment in Hartford was designed to improve neighborhood safety by encouraging community policing and working on the physical environment. The Center was commissioned to lead the evaluation of this effort, and it conducted several rounds of interviews with residents about their fears, their crime experiences, and their perceptions of their neighborhood. The program turned out to be a success and the results led to the spread of some innovative approaches in crime control.

Fowler, F.J., McCalla, M.E., \& Mangione, T.W. (1979). Reducing residential crime and fear: The Hartford neighborhood crime prevention program. US Department of Justice, Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice

Fowler, F.J., \& Mangione, T.W. (1982). Neighborhood crime, fear, and social control: A second look at the Hartford Program. US Department of Justice, National Institute of Justice.

## GAMBLING LAW ENFORCEMENT

The National Institute of Justice, which funded the Hartford study, was also very concerned about gambling law enforcement at the time that more and more places were thinking about legalizing gambling. As a result, CSR was funded to do a national study of how police officers in major American cities viewed their efforts to enforce gambling laws.

## RACIAL EQUALITY

At the end of 1970 s, there was a group named the Boston Committee that was created to try to work on racial tensions and racial equality in the city. They contracted with CSR to do a survey that would permit comparisons of the experiences of Black and White residents with respect to housing, neighborhoods, schools, safety, and work. The project produced some expected results and some surprises with respect to the ways Black and White experiences differed and ways in which they were much the same.

Fowler, Jr., F.J., (1982). Black and White Perspectives on Quality of Life in Boston, Boston, MA:
The Boston Committee

Over the years, there have been over 30 projects that have had something to do with traffic safety. At least a dozen of those projects related to seat belt use, either interviewing people about their usage or observing the rates at which samples of drivers were using seat belts. There have also been observational studies of the way drivers drive (for example speeding or obeying traffic signals) and several interview studies related to alcohol use and driving.

Morelock S, Hingson RW, Smith RA, Lederman RI. Mandatory seatbelt law support and opposition in New England--a survey. Public Health Rep. 1985 Jul-Aug;100(4):357-63.
(Tom Mangione, CSR Study Director)
Hingson, R., Levenson, S. M., Heeren, T., Mangione, T.W., Rodgers, C., Schiavone, T., \& Hertz, R. P. (1988). Repeal of the Massachusetts seat belt law. American journal of public health, 78(5), 548-552.

## ENVIRONMENTAL RISKS

There have been several studies of the effects of environmental hazards on citizen health including radon in people's homes, air quality in South Boston, cancer risks on Cape Cod, exposure to PCEs for women during pregnancy and, perhaps the most publicized of these, the health effects of potentially contaminated water in Woburn.

## END-OF-LIFE CARE

A frequent focus of CSR's work from a range of perspectives were surveys on the topic of end of live medical care. Examples of these surveys include a study of older folks' willingness to forgo major medical treatments in exchange for more support services to help keep them in their homes; a study of the effectiveness of living wills and how better to get patients' views reflected in care decisions; several studies of hospice care and health care at the end of life and how well it reflected the goals of patients and their families; surveys of medical school students and faculty about end-of-life care training, and surveys of physicians about their views on physicians assisting patients who no longer want to live were all .part of CSR's portfolio of activities related to this topic.

Emanuel, E.J., Daniels, E.R., Fairclough, D.L., \& Clarridge, B.R. (1998). The practice of euthanasia and physician-assisted suicide in the United States: adherence to proposed safeguards and effects on physicians. JAMA, 280(6), 507-513.
Teno, J.M., Clarridge, B.R., Casey, V., Welch, L.C., Wetle, T., Shield, R., \& Mor, V. (2004).
Family perspectives on end-of-life care at the last place of care. JAMA, 291(1), 88-93.

## DOCUMENTING CHANGES IN LIVES OVER TIME

Beginning in the 1980 's, CSR began a ten-year longitudinal study interviewing over 1200 9th-11th grade students from three different communities around Boston. The communities were selected to reflect different socio-economic conditions. The purpose of the study was to follow these students and examine both what caused stress in their lives and what mechanisms they used to cope with those stressors as they moved from being teenagers into adulthood.

Gore, S., Aseltine Jr, R.H., \& Colten, M.E. (1993). Gender, social-relationship involvement, and depression. Journal of Research on Adolescence, 3(2), 101-125.

Gore, S., \& Colten, M.E. (1991). Gender, stress, and distress. In The social context of coping (pp. 139-163). Springer, Boston, MA.

Certainly, no topic has played a bigger role in CSR's research agenda than health and medical care. Projects have addressed numerous different areas.

Studies of how various health problems are treated and the outcomes thereof. Targeted conditions have included AIDS, benign prostate conditions (BPH) prostate cancer, benign uterine conditions, angina, Alzheimer's disease, osteoporosis, and melanoma. There also have been several studies related to the use of mammograms.

Fowler, F.J., Wennberg, J.E., Timothy, R.P., Barry, M.J., Mulley, A.G., \& Hanley, D. (1988). Symptom status and quality of life following prostatectomy. Jama, 259(20), 3018-3022.
Barry, M.J., Fowler, Jr., F.J., O'Leary, M.P., Bruskewitz, R.C., Holtgrewe, H.L., Mebust, W.K., Cockett, A.T.K., and the Measurement Committee of the American Urological Association. (1992). The American Urological Association symptom index for benign prostatic hyperplasia. The Journal of Urology 148, no. 5: 1549-1557.
Massagli, M.P., Weissman, J.S., Seage, G.R., 3rd, \& Epstein, A.M. (1994). Correlates of employment after AIDS diagnosis in the Boston Health Study. American journal of public health, 84(12), 1976-1981.

Fowler, Jr., F.J., Barry, M.J., Lu-Yao, G., Wasson, J., Roman, A., \& Wennberg, J. (1995). The effect of radical prostatectomy for prostate cancer on patient quality of life: Results from a Medicare survey. Urology, 45(6), 1007-1013.
Fowler, Jr., F.J., Collins, M.M., Albertson, P.C., Zeitman, A., Elliot, D.B., \& Barry, M.J. (2000). Comparison of recommendations by urologists and radiation oncologists for treatment of clinically localized prostate cancer. JAMA, 283, 24: 3217-3222.

Physician ratings of the complexity of procedures. When Medicare wanted to review the rates they paid for various medical procedures, they contracted with CSR and a team of researchers at Harvard to design an approach to having doctors rate the complexity of the various tasks they perform. CSR then interviewed national samples of physicians in about 20 specialties to have them assign complexity scores to the procedures they did. The results were used to set reimbursement rates that Medicare paid physicians.

Hsiao W.C., Braun P., Dunn D., Becker E.R. (1988). Resource-Based Relative Values: An Overview. JAMA.;260(16):2347-2353.
Shared decision making. Work begun in the 1970s with Jack Wennberg continued in various forms up to the present. The key insight from a study of Maine patients treated with surgery for prostate problems was that patients varied greatly in how they felt about their symptoms and the effects of surgery on their lives. This led to the conclusion that it was important to provide patients with information so they could participate in making medical decisions that best served their interests. A Foundation for Informed Medical Decision Making was formed to create information for patients facing decisions for which there were reasonable options. CSR worked closely with the foundation for the next 25 years doing studies of how patients felt about treatments and outcomes, how treatment decisions were made, and how best to measure the extent to which patients were informed and involved when decisions were made.

## CONSUMER EXPERIENCE WITH THEIR HEALTH CARE PROVIDERS

In 1995, the Agency for Healthcare Research and Quality (AHRQ) set out to create survey instruments that could be used to compare providers and systems that delivered health care. To create instruments and data collection protocols, AHRQ contracted with three research groups, one of which was
based at the Harvard Medical School. CSR was part of the initial Harvard group. An initial product was a Consumer Assessment of Health Care Providers and Systems (CAHPS) survey instrument that was used annually to compare experiences with health insurance plans around the country.

The CAHPS program has continued up through the current time, creating instruments to measure patient outpatient and inpatient experiences, for mental health and medical care, for children and adults. The instruments are continually evaluated and updated to reflect changes in the medical care world. Throughout this 25-year period, the original group first based at Harvard and now based at Yale, has been a key player, and CSR has been a critical part of the research consortium. Work on the CAHPS instruments has certainly been one of the most important programs of research that CSR has ever been part of.

Hargraves, J.L., Hays, R.D., and Cleary, P.D. (2003). Psychometric properties of the consumer assessment of health plans study (CAHPS®) 2.0 adult core survey. Health services research, 38(6p1), pp.1509-1528.
Sangl, J., Buchanan, J., Cosenza, C., Bernard, S., Keller, S., Mitchell, N., Brown, J., Castle, N., Sekscenski, E. and Larwood, D. (2007). The development of a CAHPS® instrument for nursing home residents (NHCAHPS). Journal of aging \& social policy, 19(2), pp.63-82.
Drake, K.M., Hargraves, J.L., Lloyd, S., Gallagher, P.M., and Cleary, P.D. (2014). The effect of response scale, administration mode, and format on responses to the CAHPS Clinician and Group survey. Health services research, 49(4), pp.1387-1399.
Fowler Jr, F.J., Cosenza, C., Cripps, L.A., Edgman-Levitan, S. and Cleary, P.D. (2019). The effect of administration mode on CAHPS survey response rates and results: A comparison of mail and web-based approaches. Health services research, 54(3), pp.714-721.
Fowler F.J. Jr, Brenner P.S., Hargraves J.L., Cleary PD. (2021). Comparing Web and Mail Protocols for Administering Hospital Consumer Assessment of Healthcare Providers and Systems Surveys. Med Care 59(10):907-912.

## CIGARETTES AND SMOKING

CSR also has a long record of research on tobacco and nicotine starting in 1994, when the Center was tapped to conduct a series of population surveys evaluating the Massachusetts Tobacco Control Program, which implemented an anti-tobacco media campaign as well as funding for municipalities to enact local policies to discourage smoking such as smoking bans in restaurants and bars. CSR developed innovative survey strategies for examining the exposure and response to various types of TV advertisements and was able to demonstrate that ads featuring highly emotional portrayals of loss and pain among individual families touched by smoking-caused illnesses were the most effective approach for reducing smoking. These findings, replicated by other researchers, have been influential in decisions made about antismoking advertising around the world. This effort was also able to evaluate the impact of local clean indoor policies on attitudes and norms about smoking that provided support for policy makers around the state.

Biener, L., Nyman, A.L., Kline, R.L., \& Albers, A.B. (2004). Adults only: the prevalence of tobacco promotions in bars and clubs in the Boston area. Tobacco control, 13(4), 403-408. https://doi.org/10.1136/tc.2004.007468
Biener, L., \& Siegel, M. (2000). Tobacco marketing and adolescent smoking: more support for a causal inference. American journal of public health, 90(3), 407.
In continuing its research on tobacco and nicotine, as the rate of smoking declined and social norms against smoking grew, new products started being developed and sold in the U.S. that were purported to
be less harmful to health. These included new types of cigarettes, new types of smokeless tobacco (e.g., snus), and most recently, electronic cigarettes (e-cigarettes). Studying these new products required a variety of new approaches because they were not widely available or advertised, but instead were targeted to narrow test-markets around the country.

Bolcic-Jankovic D., Biener L. (2015). Public opinion about FDA regulation of menthol and nicotine. Tob Control. Dec;24(e4):e241-5.
One CSR project funded by the American Legacy Foundation in collaboration with the Harvard School of Public Health involved door-to-door surveys of smokers in the Boston area to see how people interpreted some of the magazine advertisements promoting the new cigarettes, and to learn how well advertisements that included accurate health information were able to convey the potential health dangers of the new cigarettes. In addition, an NCI grant enabled CSR to conduct population-based surveys in two test-markets for snus in Texas and Indiana. This study demonstrated that very few smokers were interested in taking up this new form of smokeless tobacco that was, indeed, substantially less harmful than cigarettes.

Biener, L., Roman, A.M., McInerney, S.A., Bolcic-Jankovic, D., Hatsukami, D.K., Loukas, A., O'Connor, R.J. and Romito, L. (2016). Snus use and rejection in the USA. Tobacco Control, 25(4), pp.386-392.
By conducting a follow-up of the test-market sample three years later, we were able to investigate that population's response to electronic cigarettes that had grown in popularity during the intervening years. We were able to demonstrate that regular use of electronic cigarettes among those who were smokers at baseline was associated with a 6 -fold increase in smoking cessation in comparison to smokers who did not use e-cigarettes regularly.

Biener L., Hargraves, J.L. (2015). A longitudinal study of electronic cigarette use among a population-based sample of adult smokers: association with smoking cessation and motivation to quit. Nicotine Tob Res 17(2):127-33.

HEALTH INSURANCE
In the early 1990s, CSR worked with Don Berwick on an innovative study of what people thought their health insurance should and should not cover.

Fowler, F.J., Berwick, D.M., Roman, A.M., and Massagli, M.P. (1994). "Measuring Public
Priorities for Insurable Health Care." Medical Care 32, (6), pp 626-639.
Interestingly, 15 years later, CSR did another very comparable study, working with Ezekiel Emanuel and his colleagues at Penn looking at priorities for what Medicare should and should not fund.

Gogineni K, Shuman K, Chinn D, Weber A, Cosenza C, Colten M.E., Emanuel E.J. (2015). Making cuts to Medicare: the views of patients, physicians, and the public. J Clin Oncol. Mar 10;33(8):846-53.
In the late 1990's and through most of the early and mid-2000's, CSR worked with the state's Division of Health Care Finance and Policy (DHCFP), now renamed the Center for Health Information and Analysis (CHIA), to conduct a series of statewide surveys with oversamples within the city of Boston and in western Massachusetts. to estimate the number of Massachusetts and Boston residents without health insurance. These studies took place before, during the implementation of and after the establishment of the state's law mandating health insurance for Massachusetts residents. These studies played a critical role in documenting the very positive effect that the changes in insurance laws accomplished their goal of providing health insurance for almost everyone in the Commonwealth.

In the 1990 's, CSR conducted a study in cooperation with the city of Boston's Department of Transitional Assistance (DTA) to study new strategies for helping those who were homeless. The study was funded by the U.S. Dept. Of Health and Human Services and evaluated a new transitional housing program which was being explored in the city. CSR interviewed random samples of families participating in the program as well as families housed in the city's traditional shelters or in temporary motels to see how well the new approach worked to improve the lives of participants.

Friedman, D., Hayes, M., McGah, J. and Roman, A. (1997). A Snapshot of Individuals and Families Accessing Boston's Emergency Homeless Shelters. University of Massachusetts: Center for Social Policy Publications. Paper 72.
In a separate but related study, CSR worked with the Massachusetts DTA to interview a sample of women receiving Aid to Families with Dependent Children (AFDC). In a first in the nation study, the focus of the interview was to gather information about domestic violence. With such a sensitive topic, interviews were conducted in private at DTA offices during a recertification process. Also, methods were used so that no woman would have to speak directly to any interviewer about abuse and could reveal the abuse in a totally secured environment. The results of the study led directly to policy changes within the DTA.

## RACIAL INEQUALITY

Also in the 1990s, CSR worked with scholars from the UMass Boston's McCormack Institute, the Mauricio Gastón Institute for Latino Community Development and Public Policy, and the William Monroe Trotter Institute for the Study of Black Culture and with UMass Lowell to field a study of racial attitudes, racial segregation, and labor market dynamics in the Greater Boston area as part of a four-city effort (the Multi-City Study of Urban Inequality). Teams from Atlanta, Detroit and Los Angeles were also involved in the study funded by the Ford Foundation and the Russell Sage Foundation. CSR conducted over 1800 face-to-face interviews with households in Boston and surrounding eastern Massachusetts cities with oversamples of poor and minority households to make comparisons to white households. Results examined how labor market and housing factors along with racial attitudes and segregation affect the economic situation of whites and minorities.

Bobo, L.D., \& Massagli, M.P. (2001). Stereotyping and urban inequality. In L. D. Bobo, A. O'Connor, \& C. Tilly (Eds.), Urban Inequality: Evidence from Four Cities (pp. 89-162). Russell Sage Foundation.
Hertz, T., Tilly, C. \& Massagli, M.P. (2001). Linking the multi-city study's household and employer surveys to test for race and gender effects in hiring and wage setting. In L. D. Bobo, A. O'Connor, \& C. Tilly (Eds.), Urban Inequality: Evidence from Four Cities, pp.407-443. Russell Sage Foundation.

## IMPROVING RESEARCH METHODS

Of course, a sine qua non of a survey center is the staff members are well versed in the literature about how to collect high-quality data. However, the Center has also taken a leadership role in studies of sources of error in survey estimates and how to reduce it. For example, the Center conducted a large study of error attributable to interviewers and how to reduce it. The study showed that the amount of training interviewers received and the extent to which the way they conducted interviews was monitored and reviewed was directly related to data quality. The study also showed that the design of questions can affect how much interviewers affect answers.

Fowler, Jr., F.J. (1991). Reducing interviewer-related error through interviewer training, supervision, and other means. In Biemer, et al. Measurement Errors in Surveys. New York: John Wiley, 259-278.
That finding led to a study with researchers at the University of Michigan that showed that coding the question-and-answer process during pretest interviews enables researchers to reliably identify (and improve) questions that are likely to be associated with interviewer-related error.

Fowler, Jr., F.J., and Cannell, C.F. (1996). Using behavioral coding to identify cognitive problems with survey questions. In N. Schwartz \& S. Sudman (eds.), Answering Questions. San Francisco: Jossey-Bass, 15-36.
Cognitive interviewing, one-on-one test interviews using candidate questions, can also identify questions that are not consistently understood as intended or for which the answers do not accurately reflect what respondents have to say. The Center was an early adopter of the routine use of cognitive interviewing and has done several projects jointly with the Bureau of the Census and the National Center for Health Statistics using cognitive interviewing to evaluate questions and to develop generalizations about how best to design survey questions.

Fowler, Jr., F.J., and Cosenza, C. (2008). Writing effective survey questions. In Hox, J., de Leeuw, E., \& Dillman, D. (Eds.). The International Handbook of Survey Methodology (pp. 136160). New York: Erlbaum.

Fowler Jr, F.J., Lloyd, S.J., Cosenza, C.A., \& Wilson, I.B. (2016). Coding cognitive interviews: an approach to enhancing the value of cognitive testing for survey question evaluation. Field Methods, 28(1), pp.3-20.
More recent studies have looked at how modes of data collection (in-person interviews, telephone interviews, mail surveys and surveys via the web) compare with respect to the way questions are answered and who responds.

Harmon, T., Turner, C.F., Rogers, S.M., Roman, A.M., Villaroel, M.A., Eggleston, E., Chromy, J.R. (2009). Impact of T-ACASI on Survey Measurements of Subjective Phenomena. Public Opinion Quarterly 73 (2), pp 255-260.
Turner, C. F., Villarroel, M. A., Rogers, S. M., Eggleston, E., Ganapathi, L., Roman A.M., \& AlTayyib, A. (2005). Reducing Bias in Telephone Survey Estimates of the Prevalence of Drug Use-A Randomized Trial of Telephone Audio-CASI. Addiction 100, 1432-1444.

The Center also just completed a large study of the effect on nonresponse on estimates based on telephone surveys.

Fowler F.J. Jr, Brenner P.S., Buskirk T.D., Roman A.M. Telephone health survey estimates: Effects of nonresponse and sample limitations. Health Serv Res. 2019 Jun;54(3):700-706.
Fowler, F.J., Brenner, P., Roman, A.M., \& Hargraves, J.L. (2020). The effects of nonresponse and sampling omissions on estimates on various topics in federal surveys: Telephone and IVR surveys of address-based samples. Jof Official Statistics. 36 (3) 631-645.
Brenner, P.S. (2021). Effects of nonresponse and coverage problems on survey estimates of physical activity. Sociological Spectrum, 1-14.

## PATIENT SAFETY

One major area of research during this decade included a series of surveys related to patient safety and prevention of adverse events. From 2001 to 2004 CSR worked with the Massachusetts Department of Public Health on a large multi-survey effort funded by the U.S. Agency for Healthcare Research and

Quality (AHRQ). The research team also included researchers from the Massachusetts General Hospital, the Harvard School of Public Health, the Massachusetts Hospital Association, and the Massachusetts Coalition for the Prevention of Medical Errors. The goal of the project was to evaluate the effectiveness of the Massachusetts' Mandatory Reporting System (MARS), which requires hospitals to inform the state and inform patients of significant medical errors that occur during hospitalization.

One of the surveys in this effort collected data from recently discharged patients from 16 general acute care hospitals in Massachusetts to determine the rates at which patients experience what they considered to be adverse events, to describe the kinds of events patients reported, to identify the correlates of those reports, and to learn how hospital staff communicate with patients in those situations.

Fowler, Jr., F.J., Epstein, A., Weingart, SN., Annas, C.L., Bolcic-Jankovic, D., Clarridge, B., Schneider, E.C., Weissman, J.S. (2008). Adverse events during hospitalization: Results of a patient survey. The Joint Commission Journal on Quality and Patient Safety, 34 (10), 583-590.

Another survey aim collected data from CEOs of Massachusetts hospitals, as well as from quality improvement directors/patient safety officers and team leaders responsible for reconciling medication and communicating critical test results. The purpose of this aim was to assess progress in implementing the safe practice recommendations aimed at reducing medication errors and promoting timely and reliable communication of critical test results.

## WITHIN FAMILY DIFFERENCES

In 2001, working with researchers at Cornell University, and later at Purdue University, CSR launched a study of family relationships. An initial sample of older mothers who lived in the Boston area were interviewed about their relationships with their children. Then, their adult children and husbands were interviewed. Mothers and children were again interviewed 7 years later about how things had changed. Recently, another wave of interviews was conducted, this time including for the first time the adult grandchildren of the initially interviewed mothers. One of the key added topics this time was bereavement as many current panel members have had to deal with the deaths of their parents.

> Suitor, J.J., Sechrist, J., Plikuhn, M., Pardo, S.T., Gilligan, M. and Pillemer, K. (2009). The role of perceived maternal favoritism in sibling relations in midlife. Journal of Marriage and Family, 71(4), pp.1026-1038. (MaryEllen Colten, CSR study director)

HELPING STATE AGENCIES COLLECT SURVEY DATA
Around the start of $21^{\text {st }}$ Century, CSR expanded the collaboration with different departments within the Commonwealth of Massachusetts. CSR worked with the Division of Medical Assistance (DMA) on the MassHealth Member Surveys, conducted to evaluate the health care experiences of MassHealth Enrollees in the managed care programs offered by the DMA in 1999 and 2000.

From 2001 to 2013 CSR conducted bi-annual surveys of Massachusetts Employers to determine the types of health insurance offered to employees and barriers offering health insurance. These surveys were conducted in collaboration with the Massachusetts Division of Health Care Finance and Policy, now the Center for Health Information and Analysis (CHIA).

Another area of collaboration with the state included surveys of students in Massachusetts public schools. The Massachusetts Department of Elementary and Secondary Education (DESE) has been conducting the Youth Risk Behavior Survey (YRBS) in Massachusetts' public schools (grades 9 through 12) since 1993, as part of a national effort organized by the U.S. Centers for Disease Control and Prevention (CDC) to monitor the extent to which high school students practice health risk behaviors. In 2003, the Massachusetts Department of Public Health (DPH) and CSR began working on developing a more comprehensive health questionnaire that would not only ask questions about risk behaviors such as
drug, alcohol, and tobacco use, but also ask about more general health issues such as dieting and eating habits, mental health, physical safety, and other health-related issues, and would also survey middle school students (grades 6-8).

In 2004, CSR began administering the Massachusetts Youth Health Survey (YHS). Considering that both YHS and YRBS cover many of the same topics, both survey students in Massachusetts' public schools, and to reduce burden on schools, DPH and DESE decided to consolidate the efforts and conduct both surveys concurrently. In 2007, CSR began administering both YHS and YRBS, and continued to do so until 2019.

Since 2016, CSR has been working with the Massachusetts Department of Housing and Community Development (DHCD) to survey the residents of the public housing developments managed by the Commonwealth. Recent legislation has required DHCD to evaluate the experiences of public housing residents in over 240 different cities and towns across the state. The one-page survey (available in 8 languages) includes questions about maintenance and repair, safety, and communication with the Housing Authority and the administration at the housing development. This multi-year project, which is ongoing, surveys about 10,000 public housing residents per year.

## GENETIC MEDICAL ISSUES

Another major area of research in this decade was related to genetic research. In 2002-2003, CSR in collaboration with the researchers from National Human Genome Research Institute (NHGRI) surveyed patients recruited from five U.S. academic medical centers to learn about their attitudes and preferences regarding use of anonymous and identifiable clinical samples for genetic research.

In 2006-2007, CSR worked with a research team from Massachusetts General Hospital/Harvard Medical School (with funding from the NIH) on a survey of academic scientists from clinical/medicine, clinical/non-medicine, genetics, and other life science departments to learn about academic-industry relationships and the impacts of these relationships on the academic life science research sector.

In 2008-2009, CSR collaborated with another research team from Massachusetts General Hospital/Harvard Medical School on a survey funded by the NIH/NHGRI aimed at learning about the views of U.S. adults about the role of genetics in nicotine addiction and a potential use of genetic testing to receive tailored smoking cessation treatment.

And in 2009, CSR began working with a team of researchers from Washington University School of Medicine and University of Texas Southwestern Medical Center on a study funded by the NIH to better understand how people making decisions for critically ill family members view the potential use of genetic information. CSR surveyed ICU patients and their surrogate decision makers from three hospitals-two in St. Louis, MO and one in Dallas, TX.

> Campbell, E. G., Clarridge, B. R., Gokhale, M., Birenbaum, L., Hilgartner, S., Holtzman, N.A. and Blumenthal, D. (2002). Data withholding in academic genetics: evidence from a national survey. JAMA, 287(4), pp.473-480.
> Bolcic-Jankovic D., Clarridge B.R., LeBlanc J.L., Mahmood R.S., Roman A.M., Freeman B.D. (2014). Exploring Determinants of Surrogate Decision-Maker Confidence: An Example From the ICU. J Empir Res Hum Res Ethics 9:76-85.

Clarridge B.R., Bolcic-Jankovic D., LeBlanc J., Mahmood R.S., Kennedy C.R., Freeman B.D. (2015). Does difficulty functioning in the surrogate role equate to vulnerability in critical illness research? Use of path analysis to examine the relationship between difficulty providing substituted judgment and receptivity to critical illness research participation. J Crit Care. 30(6):1310-1316.

Freeman, B.D., Bolcic-Jankovic, D., Kennedy, C.R., LeBlanc, J., Eastman, A., Barillas, J., Wittgen, C.M., Lindsey, K., Mahmood, R.S. and Clarridge, B.R. (2016). Perspectives of decisional surrogates and patients regarding critical illness genetic research. AJOB empirical bioethics, 7(1), pp.39-47.

## SEXUALLY TRANSMITTED INFECTIONS

In the mid 2000's, CSR conducted at study in the city of Baltimore in collaboration with the Research Triangle Institute, Queens College in New York, Johns Hopkins University and the University of North Carolina-Chapel Hill that was aimed at improving the estimation of the percentage of young adults who had symptomatic and asymptomatic sexually transmitted infections. The study made use of telephone-audio-computer-assisted self-interviewing (TACASI) to conduct interviews on a very sensitive topic in an urban center with a large percentage of minority residents.

Turner, C.F., Al-Tayyib, A., Rogers, S. M., Eggleston, E., Roman A.M., Villarroel, M.A., Chromy, J.R., Cooley, P.C. (2009). Improving Epidemiological Surveys of Sexual Behavior Conducted by Telephone. International Journal of Epidemiology 38(4): 1118-1127.

## WEIGHT TREATMENTS

From 2007 to 2015 CSR worked with Beth Israel Deaconess Medical Center and Harvard Medical School on a longitudinal telephone survey aimed at understanding patients' preferences and value for weight and weight treatments. CSR collected baseline data before the bariatric surgery, 6-8 weeks, 6 months, 1 year, 2 years, 3 years, and 4 years after the surgery, as well as data from a control group.

Wee C.C., Hamel M.B., Apovian C.M., Blackburn G.L., Bolcic-Jankovic D., Colten M.E., Hess D.T., Huskey K.W., Marcantonio E.R., Schneider B.E., Jones D.B. (2013). Expectations for weight loss and willingness to accept risk among patients seeking weight loss surgery. JAMA Surg. 148(3):264-71.

## THE BOSTON MARATHON BOMBING

In 2013 while working with Dr. Naa Oyo Kwate of Rutgers University on a study of attitudes and disparities among three distinct socio-economic neighborhoods of Boston, the Boston Marathon bombing occurred. CSR was able to investigate how the bombing affected attitudes in these neighborhoods with measures taken shortly before and after the bombing.

> Brenner, Philip S., LeBlanc, Jessica L., Roman, Anthony M., Kwate, Naa Oyo A. (2015). Safety and Solidarity After the Boston Marathon Bombing: A Comparison of Three Diverse Boston Neighborhoods. Sociological Forum. March 2015, pp 40-61.

## HOW TO SUPPORT HEALTHY AGING

Falls among the Elderly. In collaboration with Hebrew SeniorLife and Harvard, CSR recruited a sample of 750 people 70 years of age or older living in Boston and some nearby communities to take part in a longitudinal study of falls and the detrimental effects they have on the elderly population. The goal was to get medical and physical measurements on the panel of elderly participants and follow them monthly over time recording who experienced falls and the effect of those falls. The purpose was to determine the best way to prevent falls and ways of determining the likelihood any individual might fall to take steps to minimize possible future falls. The sampling and data collection design of this study has become frequently cited with many studies modeled on how it was done.

Leveille, S.G., Kiel, D.P., Jones, R.N., Roman, A.M., Hannan, M.T., Sorond, F.A., Kang, H.G., Samelson, E.J., Gagnon, M., Freeman, M., \& Lipsitz, L.A. (2008). The MOBILIZE Boston Study: design and methods of a prospective cohort study of novel risk factors for falls in an older population. BMC geriatrics, 8, 16.
Samelson E.J., Kelsey J.L., Kiel D.P., Roman A.M., Cupples L.A., Freeman M.B., Jones R.N., Hannan M.T., Leveille S.G., Gagnon M.M., Lipsitz L.A. (2008). Issues in conducting epidemiologic research among elders: lessons from the MOBILIZE Boston Study. Am J Epidemiol168(12):1444-51.
As a follow-up, CSR again worked with Harvard University and Hebrew Senior Life on a study of seniors living in local supportive housing sites in the Boston area. The study, funded by the National Institute on Aging, attempted to learn whether engaging in regular activities- such as Tai Chi exercise and health and wellness programs consistently for one year can improve physical function, such as walking, balance, overall health and well-being and whether it had an impact on needed health care services.

## SURVEYS OF PHYSICIAN PERCEPTIONS

Physician perceptions related to overuse of medical care were the focus of a 2015 survey. The sponsor of this project was the Lown Institute; the study was funded by the Robert Wood Johnson Foundation. National samples of primary care physicians (both Internal Medicine and Family Medicine) and specialists in cardiology, psychiatry, oncology, and orthopedic surgery were surveyed by mail. Questions focused on their perceptions of the kinds of medical services they thought were overused, the factors that encouraged overuse and their thoughts about alternative ways to reduce overuse of medical care.

Medical marijuana was the topic of a 2016 survey in collaboration with the Dana Farber Cancer Institute, Harvard Medical School, and Massachusetts General Hospital designed to learn about the attitudes, beliefs, and practices of U.S. oncologists regarding the role of marijuana in cancer care.

Braun I.M., Wright A., Peteet J., Meyer F.L., Yuppa D.P., Bolcic-Jankovic D., LeBlanc J., Chang
Y., Yu L., Nayak M.M., Tulsky J.A., Suzuki J., Nabati L., Campbell E.G. (2018). Medical

Oncologists' Beliefs, Practices, and Knowledge Regarding Marijuana Used Therapeutically: A
Nationally Representative Survey Study. J Clin Oncol. 36(19):1957-1962.
Azizoddin D.R., Enzinger A.C., Wright A.A., Yusufov M., Tulsky J.A., Campbell E.G., Bolcic-
Jankovic D., Nayak M.M., Braun I.M. (2020). Oncologists' perspectives on medical marijuana use by older adults. J Geriatr Oncol 11(6):1034-1037.
Sannes T.S., Nayak M.M., Tung S., Chai P.R., Yusufov M., Bolcic-Jankovic D., Pirl W.F., Braun I.M. (2021). United States oncologists' clinical preferences regarding modes of medicinal cannabis use. Cancer Commun (Lond) 41(6):528-531.
Bolcic-Jankovic D., Campbell E.G., LeBlanc J.L., Nayak M.M., Braun I.M. (2021). Using "Don't Know" Responses in a Survey of Oncologists Regarding Medicinal Cannabis. Survey Practice 14(1).
In 2019-2020 CSR collaborated with the Massachusetts General Hospital, Harvard Medical School, and University of Colorado School of Medicine on a survey aimed to understand factors that contribute to health care disparities for persons with disability from the perspective of physicians practicing in seven specialties: family practice, internal medicine, neurology, obstetrics \& gynecology, ophthalmology, orthopedics, and rheumatology. The study was funded by the National Institutes of Health.

Iezzoni L.I., Rao S.R., Ressalam J., Bolcic-Jankovic D., Agaronnik N.D., Donelan K., Lagu T., Campbell E.G. (2021). Physicians' Perceptions of People with Disability and Their Health Care. Health Aff (Millwood) 40(2):297-306.

In 2015-2016, CSR collaborated with Tufts University and Massachusetts Health Policy Commission (HPC) on the study entitled "Understanding the Value of Community Care: Can Consumer Decisionmaking Be a Tool for Cost Containment." The study was designed as an online survey and was created to understand consumers' preferences when seeking health care. The survey instrument included the Discrete Choice Experiment portion designed to better understand how people choose between different health care options.

Koch-Weser S., Chui K., Hijaz S., Lischko A., Auerbach, D. (2019). Investigating consumer hospital choice: Demand and supply-side levers could address health care costs. Healthcare 7(3).
On a different topic, but also related to patient preferences, CSR worked with researchers from Beth Israel Deaconess Hospital and the Harvard Medical School on a study of the preferences and care experiences of Asian Americans with advanced cancer. CSR developed and tested several survey instruments designed for the baseline and follow-up interviews with patients and their caregivers in Mandarin, Cantonese, and Vietnamese, as well as in English. All participating patients were receiving treatment in Boston area hospitals. The study was funded by the American Cancer Society.

Bolcic-Jankovic D., Lu F., Colten M.E., McCarthy E.P. (2016). Using Cognitive Testing to Develop Items for Surveying Asian American Cancer Patients and Their Caregivers as a Pathway to Culturally Competent Care. J Empir Res Hum Res Ethics 11(1):57-66.

## MEASURING DECISION QUALITY

One of the important recent developments in medicine is the growing conviction that patients should be informed and involved in making decisions about their medical care. If that is to be a standard for quality of care, it is important to have good measures of how decisions are made. Working with researchers at Mass General Hospital, CSR has been part of a series of studies of how best to measure decision quality validly and reliably. A key part of the project is to assess whether questions that have been used to measure how surgical decisions are made can also be used or adapted to assess decisions about taking long-term medications or getting cancer screening. The project has involved cognitive tests of questions and collecting data from web-based samples and patients from clinical sites about how their medical decisions of various types are being made.

Sepucha, K.R., Feibelmann, S., Cosenza, C., Levin, C.A., \& Pignone, M. (2014). Development and evaluation of a new survey instrument to measure the quality of colorectal cancer screening decisions. BMC Medical Informatics and Decision Making, 14(1), 72.
Valentine, K.D., Vo, H., Fowler, F.J., Brodney, S., Barry, M.J., Sepucha, K.R. (2021).
Development and evaluation of the shared decision-making process scale: A short patientreported measure. Medical Decision Making 41(2): 108-119.

Funded by state and regional ocean planning agencies and working with the Urban Harbors Institute at UMass Boston, the center has conducted a series of innovative surveys of recreational boat owners from Maine to North Carolina, mapping the trips they take on the ocean through a combination of web surveys and geographic mapping software. The study shows how the ocean is being used recreationally and provides the basis for estimating the economic impacts of recreational boating along the East Coast. A follow-up project surveyed harbor masters about needed dredging that had been done to estimate the economic impacts of dredging.

Hellin, D., Wiggin, J., Uiterwyk, K., Starbuck, K., Napoli, N., Terkla, D., Watson, C., Roman, A.M., Roach, L. and Welch, T. (2011). 2010 Massachusetts Recreational Boater Survey: Final Report, submitted to the Massachusetts Ocean Partnership.

## SPECIAL OLYMPICS/PROJECT UNIFY

From 2005 through 2018, CSR worked with UMass Boston's Center for Social Development and Education on a series of projects focusing on Special Olympics' programs like Young Athlete's and Unified Sports. CSR helped create surveys used to evaluate Project Unify, a national effort sponsored by Special Olympics creating inclusion among students with intellectual disabilities into public-school activities and classrooms. Data were collected from students and from teachers running the programs nationwide. CSR also interviewed and ran focus groups with students with intellectual disabilities both in the Boston area and in Europe.

Siperstein, G.N., Glick, G.C., Harada C.M., and Bardon, J.N. (2006). Evaluation of Camp Shriver in Six US Sites. University of Massachusetts Boston. (Anthony Roman and Carol Cosenza consulting on survey development).

## DEALING WITH COVID-19

In 2020, researchers at Northeastern and UMass Boston collaborated to get a National Science Foundation grant to survey Boston residents about how they were affected by and coping with the effects of COVID-19 on their lives. Data were collected on how people's work, their home lives, their finances, and their health were affected. Data were also collected on the extent to which people went out (or stayed home), wore masks and socialized, and how these all varied by neighborhood and by their characteristics such as age, family type and ethnicity. Timely reports were written and made generally available to the Boston community, https://www.umb.edu/csr/covid19-in-boston/reports.

Wang Y., Ristea A., Amiri M., Dooley D., Gibbons S., Grabowski H., Hargraves J.L., Kovacevic
N, Roman A.M., Schutt R.K., Gao J., Wang Q., O'Brien D.T. (2021). Vaccination intentions generate racial disparities in the societal persistence of COVID-19. Sci Rep 11(1):19906.

## STAFFING

The Center has had many hundreds of employees over the years who were crucial to carrying out its work. First, and arguably foremost, are the many hundreds of interviewers who knocked on doors, braved inclement weather, or spent hours calling folks on the telephone to find out what people had to say and to find out important details about people's lives. Without the incredible work of these people, there would have been no Center for Survey Research.

A smaller, but nonetheless critical, cohort is composed of the hundreds of people who have worked to code the answers given to interviewers or recorded in self-administered questionnaires. The accuracy and reliability of coding is another crucial step in having accurate data. Again, we cannot list them by name, but we owe them a very important vote of thanks.

There are groups of people who are not quite as numerous who also were crucial to the success of the Center. The following is a nearly complete listing of those who were with the Center at least 2 years.

## Directors

| Floyd J. (Jack) Fowler | 1971-1982; 1986-1989 |
| :--- | :--- |
| Thomas W Mangione | $1982-1986$ |
| Mary Ellen Colten | $1989-2014$ |
| J. Lee Hargraves | $2015-2016,2019-$ |
| Trent D. Buskirk | $2017-2019$ |

## Study Directors and Project Managers

These staff members were responsible for developing projects, acquiring funding and have primary responsibility for managing projects at the Center.

Anthony Roman
Barbara Thomas
Brian Clarridge
Carol Cosenza
Charles Turner
Douglas Currivan
Dragana Bolcic-Jankovic
Floyd J. (Jack) Fowler
J. Lee Hargraves

Karen Bogen
Karen Seashore Louis
Laurence Branch

Lois Biener
Mary Ellen Colten
Mary Ellen McCalla
Michael Massagli
Patricia Gallagher
Philip S. Brenner
Robert Aseltine
Steven J. Dubnoff
Susan Gore
Thomas W Mangione
Vickie L. Stringfellow

## Assistant Study Directors

These staff members work closely with study directors and project managers, including survey development, sampling management, implementation, and reporting.

| Alison Hauser | Kirk Larsen |
| :--- | :--- |
| Amy Nyman | Lauren A Cripps |
| Anthony Perez | Lisa Williams |
| Ban Chuan Cheah | Matthew Dupre |
| Bin Lin | Matthew Jans |
| Carmen Arroyo | Michelle Allen |
| Carrie Spearin | Nelly Moura Oliver |
| Catherine Flynn (Garrett) | Nikola Kovacevic |
| Cecilia Shiner | Pamela Sapyta |
| Cynthia Martin | Peter Forbes |
| Cynthia Talkov | Qinqin Ge |
| Danika Tynes | Rebecca Reimer |
| Deborah Potter | Rebecca Sheridan (Crow) |
| Diana Elliott | Rumel Mahmood |
| Diane Jin | Sabrina Manigo |
| Elsa Wiersma | Sandra Gordon Richman |
| Frederick E. Pratter | Sarah Winkley |
| George Markos | Scott McInerney |
| Gregory Fitzgerald | Sean Sullivan |
| Janice Hughes | Sigurd Winslow |
| Jennifer Gordon | Stephanie J. Lloyd |
| Jennifer Moorehead | Susan Graves |
| Jennifer Peura (Dunne) | Svea Stromme |
| Jessica LeBlanc | Swaati Eklund (Bangalore) |
| Jonathan Scharf | Timothy Stablein |
| Kathryn Bell | Wendy Sullivan |
| Kim Galipeau | Zhu Xiao Di |

Interviewer Supervision

| Alice Fehlhaber | Marsha Schofield |
| :--- | :--- |
| Cynthia Spinner | Peter Terres |
| Dennis Cohen | Polly Armsby |
| Dixie Kuehnel | Susan Hynek |
| Dorothy Cerankowski |  |
| Margaret Raisty |  |

## Coding Supervisors

Carol Cosenza Jean Miller
Dorothy Jackson
Ebony Haley
Sigurd Winslow
Tracie Hall
Administration and Financial Management

Ali Sabouri
Caroline Wehner
Coretta Bates
David Speltz
Julia Chambliss
Nathan Yee
Administrative Support Staff
Anstis Benfield
Iris Tolbert
Kenya Vonmuller
Linda Montgomery

Paula Ayers
Phyllis L. Doucette
Rita Nath
Robert Starbuck
William Crombie

Liz Moncrief
Pearl Porter
Peggy Carter
Virginia (Ginnie) MacKay
Virine Morris

