

Notes from the DC-AAPOR *Panel on Training for Survey Research*  
June 11<sup>th</sup>, 2014  
Pew Research Center

## Introductions

Dr. Scott Fricker (2014 DC-AAPOR Program Chair) welcomed the audience and panelists to the event, thanked Pew for hosting the panel, and introduced Dr. Stanley Presser (University of Maryland) – co-organizer of the event and its moderator. Dr. Presser introduced the panelists and invited them each to give brief opening remarks, reflecting on the strengths and weaknesses of training in survey research, and suggestions for its improvement.

## Opening Remarks

Graham Kalton (Westat) [PowerPoint slides]:

Dr. Kalton was involved in the establishment in 1993 of the Joint Program in Survey Methodology (JPSM) at the University of Maryland. He provided a brief description of that program's original mission and structure, as well as some of its challenges, then and now:

- Two areas of concentration (social science and statistical science); 45 required credits (18 shared between the two areas); many MA/MS programs require only 30 credits.
- Goals:
  - To provide students with a general understanding of all aspects of survey research, together with more detailed knowledge in one of the two areas
  - To equip students with the skills needed to produce high-quality surveys, to pursue Ph.D. degrees if desired, and to continue learning throughout their careers as the field inevitably evolves.

Dr. Kalton noted that there have been many advances in survey methodology since 1993 (e.g., growth in the literature, number of peer-reviewed journals, international conferences and workshops, academic courses/programs). Focusing on the area of survey statistics specifically, Dr. Kalton noted that the field has grown enormously and become more challenging technically. Survey statisticians need a broad skillset (including a solid background in theory and methods, good communication skills, knowledge of range of special topics in survey statistics). One approach to address the expansion of the field of survey statistics in a Master's program would be to reduce the number of general survey methods courses and instead offer more courses in survey statistics. Dr. Kalton expressed doubts that this approach could fully address the issue, however; MS-level training cannot possibly cover everything needed for all practical applications. He pointed to a number of possible other approaches: on-the-job training; Ph.D. degrees; advanced certificate training; short courses; web-based training with readings and assignments. He also highlighted the need to attract qualified undergraduates to the field, for example through the establishment of undergraduate minors in survey statistics/methods, and direct recruiting efforts for graduate students.

Barbara O'Hare (Census) [PowerPoint slides]:

Expanding upon the earlier point about the challenges of recruiting new students to the field, Ms. O'Hare said that some of this may be a branding problem. That is, increasingly the word "survey" is equated with those intrusive cold calls people receive for marketing or political polls. This does not capture the richness of the field, or convey the challenges one faces in trying to collect information about the behaviors and attitudes of the public.

Ms. O'Hare identified three fundamental skills that are necessary to contribute to the field. First, the person must be knowledgeable about the entire survey lifecycle - from concept development and testing, through sampling, collection, estimation, and dissemination. They also must understand the sources of error that arise in the different stages, from both theoretical and practical vantage points, and have strong training in statistical measurement. From her perspective as a researcher and manager in both the private sector and in the federal statistical system, Ms. O'Hare spoke to what organizations are looking for when making hiring decisions. Hiring managers want employees who are trained in survey methods and survey management, and who can continue to add to the body of knowledge in these areas. One of the most desirable attributes of any new hire is demonstrated experience working with survey operations – again, having a familiarity with the activities, culture, and constraints at each survey stage, but also the ability to communicate effectively with personnel within and across those stages.

Speaking as a graduate of a survey methods program (JPSM), and also as a manager who relies on such programs for hiring and training staff, Ms. O'Hare identified some of the main pros and cons of current educational programs and practices. On the positive side, these programs do an excellent job teaching traditional survey methods and applied statistics; they are perhaps less effective in handling emerging challenges (e.g., nonprobability samples; big data; use of emerging media). She cited several ways educational institutions and professional organizations might better prepare students – by offering them the opportunity to apply what they've learned to real-world problems (e.g., JPSM's survey practicum; design seminars), to demonstrate the value of conducting experimental research (even small-scale studies), and to incorporate more examinations of cost-quality tradeoffs in surveys.

#### Scott Keeter (Pew):

Dr. Keeter shared his perspective as a member of a public-polling organization. These firms operate in the public eye with both a substantive mission and reliance on survey expertise, but their needs differ from other survey organizations in some respects. For example, until relatively recently these firms tended to contract out most of the survey sampling and collection work, but increasingly they are developing in-house survey resources and expertise (e.g., to support web-based surveys, in methods for sampling and surveying rare populations). Effective staff are skilled at managing relationships with contractors, through clear communication of all requests, an understanding of the implications of those requests within the contracting organization (e.g., what's reasonable and what isn't), and the ability to provide the information necessary for contractors to make educated decisions to support those request (e.g., to provide the "best" option, not just the cheapest option).

Dr. Keeter indicated that public polling firms generally will look to hire subject-matter experts who also understand survey design or statistical theory, and who have practical experience blending these two strengths. He emphasize that staff need to be able to understand and balance the trade-offs between quality, speed and low-price (you can only have 2 of the 3). They should demonstrate strong data analysis skills and the ability to caution against misinterpretation of findings, and be effective communicators with colleagues and consumers of their products. He underscored the role emotional intelligence plays in staff effectiveness, and noted that those recruited with backgrounds in psychology have been strong resources for Pew.

Dr. Keeter emphasized the value that internships and practicums have for professional development by providing individuals direct, practical understanding of the concepts and operations. He indicated that Pew has started a data analytics intern program which explores the connection between design data

and organic data. He also referenced Matt Jans' blog with recent posts on survey training (<http://survmeth.blogspot.com/>), and Stas Kolenikov's query about how to establish better lines of communication with our academic partners regarding the skills we hope to see coming out of their survey research programs.

Mikelyn Meyers (Census):

Ms. Meyers' graduate degree in sociolinguistics and fluency in Spanish first brought her to the Census Bureau as an intern conducting Spanish interviews. She reported that this experience was invaluable because it enable her to integrate her unique expertise (in ethnography, discourse norms, etc.) in an applied setting, but she lacked exposure to the operational side of surveys. Her subsequent job at Abt-SRBI gave her the opportunity to be involved in 'real-world' operations, and solidified her appreciation for the role of knowing what can be implemented versus the ideal design.

In addressing areas for improvement in survey research training, Ms. Meyers focused on the role of multilingual survey research, citing that almost 10% of the U.S. population is non-English speaking or speaks limited English. She emphasized the potential impacts of this figure on estimates derived from surveys in which little or no translation work has been done, and noted that multi-lingual research often is one of the first areas to be dropped when budgets are cut. She advanced several justifications for retaining multi-lingual research resources. The first is that in an era where concerns of respondents' perceptions of survey burden are often cited, materials vary considerably in length across languages (e.g., the average Spanish instrument is 1/3 longer than its English equivalent), so survey organizations need to plan ahead when designing materials like advance mailings. Second, there are best practices to maximize the quality of translations (and reviews of those translations), but they are rarely followed in practice; again, this can have significant impact on respondent cooperation, comprehension, etc. And finally, Ms. Meyers noted that fixed contact strategies may not be optimal for different communities (e.g., "Dear Resident" may have different connotations for different respondent groups).

Jill Dever (RTI) [PowerPoint slides]:

Dr. Jill Dever said that survey methods programs traditionally have provided a solid foundation in methodological training or statistical training, but increasingly have focused on hybrid training that aims to produce researchers with strong foundations in both disciplines. She noted that many people (outside select cities, like DC, Ann Arbor, MI, or Lincoln, NE) do not have easy access to survey methods programs or courses in survey methods. Dr. Dever posed for consideration the question of whether survey researchers also should receive outside subject matter training. She suggested that greater attention to the potential impacts of different languages and cultures on surveys, and the incorporation of research outside the U.S., would strengthen the curricula of survey methods programs.

Dr. Dever pointed to mentoring programs available to new and mid-career survey researchers through the American Statistical Association (ASA) and the American Association for Public Opinion Research (AAPOR). She cited these and similar programs (in other professional groups and within agencies/organizations themselves) as important vehicles for bridging the gap between theory and practice. A number of books and articles also are available that provide practical tools and examples to help researchers better understand concepts and survey best practices (e.g., Valliant, Dever, Kreuter, 2013). Dr. Dever said that there is increasing awareness among students of the need for mentors, and among established professionals of the need to grow a new generation of mentors and innovative researchers.

Dr. Dever discussed the need to develop training to handle hybrid or non-traditional surveys (e.g., non-response follow-up designs; adaptive designs; non-probability surveys; data collected/combined from various sources), with focus on appropriate design, collection, and estimation methods, and on assessments of total survey error and fitness for use. She also highlighted the need for training in communication skills (written and verbal) that are essential to convincing others to adapt their surveys to changing real-world conditions, and the need to strengthen training for those who are not in one of the few formal survey methods programs.

Danni Mayclin (EIA):

Ms. Mayclin reported that according to the O\*NET Online resource, the occupation of survey researcher requires the highest level of preparation (similar to the field of medicine). After graduating from the JPSM MA program, Ms. Mayclin had internships at Westat and the Energy Information Administration (EIA), and said that both gave her practical applications that reinforced and went beyond her course work. She stressed the need for experiential training, citing her 3-month detail working in the Office of the Administrator at EIA, where she learned how that agency interacts with outside actors, how limited resources are allocated, and how organizational decisions are made. Ms. Mayclin also was involved in the EIA's Energy Industry Study Program, a program in which new employees meet monthly for presentations by guest speakers, field trips, and other activities and discussions. She credited this program with helping her to develop an informal network of people in her agency and in the field. EIA also provided a mentorship program that matched staff with a primary user of EIA data. Ms. Mayclin indicated that this program was valuable because it allowed her to teach the user about EIA survey methods and communicate how the user could benefit from various products, and it allowed the data user to teach her how the data were being used, and to offer suggestions for enhancing the data and related documentation.

Ms. Mayclin suggested several areas in which survey research training could be improved. She said that there is need for more survey management courses that expose students to real operational process and cost considerations. She emphasized the need to look for opportunities to integrate production and research activities, which would benefit both production and research staff, and provide a better foundation for developing, testing, and implementing design improvements. Finally, Ms. Mayclin shared an anecdote about the popularity of a recent, survey-methods heavy Nate Silver piece ("In Search of America's Best Burrito"), and she encouraged the audience to reflect on how we communicate what it is we do. Might we do a better job framing our results, "marketing" our field in ways that capture the interest and appreciation of potential survey research students, and consumers of our work?

**Discussion / Q&A**

*Q: How do panelists feel having a mentor differs from having a supervisor?*

Keeter: You want a mentor to be someone senior, who knows how to navigate the organization, but not a direct supervisor.

Dever: Mentors vary depending on whether interest is a career mentor or a mentor in a specific topic; ASA has non-organizational mentors.

Meyers: There is a role for mentees to proactively seek out mentors, just ask.

### *Suggestions for JPSM*

An audience member/JPSM graduate noted that there is considerable overlap between the content of some core courses taken by same student. If this were eliminated, it would improve students' experiences and create room for additional content. In addition, she suggested offerings in areas more likely to be applied, such as psychometrics and survey management, which she found to be very helpful in her current job. Assistantships and internships also are helpful, but thought needs to go into selecting students who are well matched to the intended activities, there should be clear pedagogical goals, and a resource outside the PI/supervisor for students/interns to provide feedback, ask questions, and communicate concerns.

Kalton: It is important for the internship provider to make sure that the intern has a good learning experience.

Audience commenter: suggested having internship contracts/agreements

Presser: JPSM is aware of the overlap issues and is in the process of addressing them.

### *Access to survey research training resources*

As someone coming to the field later in the educational process, and who does not reside near a survey methods program, there are few courses that provide training in state-of-the-art skills (e.g., sampling, web surveys) needed for the field. Without relocating, what resources/options are available?

Kalton: The Michigan summer program is an option if short-term relocation is possible. There also is a trend toward Massive Open Online Courses (MOOCs or web-based training), which JPSM is considering. Short-courses can provide good training, but unless there is a project-related need (i.e., the student can immediately apply what was learned in the course), he is concerned that the skills are not retained.

Audience member: UCONN offers an online MA in survey research (<http://surveyresearch.uconn.edu/ma/>)

### *Applicant Skillset – Importance of Subject-Matter and Survey-Methods Expertise*

One audience member noted that Dr. Keeter indicated that Pew has a preponderance of subject-matter specialists and fewer survey methodologists, and wondered if this was unique to Pew.

Kalton: Westat has subject-matter specialists who are conversant with surveys, and separately has a group of statisticians and survey methodologists that supports the whole company.

Dever: Regardless of the staffer's focus (subject-matter vs. survey-methods), it is important that they can work with people of the other discipline.

Keeter: The AAPOR conference is largely comprised of methods presenters these days, but subject-matter specialists attend as well, to learn about methodological developments; the conference remains valuable for both groups.

*Many universities currently are not structured to accommodate survey training - how can this be overcome?*

Kalton: Training in survey research requires instructors with practical experience. Years ago a survey sampling class might well be taught by someone just teaching from a textbook, focusing on the mathematical theory. Unless instructors have experience actually doing what they are teaching, there is a risk of losing students interested in the practice of survey research.

O'Hare: JPSM is particularly strong because it has practitioners as educators.

Dever: RTI is considering whether to have training in-house or collaborate with outside universities. One limitation is the competing demands of university faculty.

### *Challenges to developing hybrid methodologists*

A member of the audience who works on instrument design and often interacts with sample statisticians noted the need for hybrid methodologists – people with good foundations in both areas, who can communicate effectively to bridge gaps. She said that there seems to be a lack of senior people with skills in both areas, and workload limits the amount of time available to cross-train people in the area in which they are weaker.

O'Hare: This is an issue at many organizations. Census is trying to cultivate people into its senior staff from within, who have both skills.

Audience member: Longer-term staff probably pre-date JPSM and were recruited into the field instead of being trained into it, and this might account for that gap in staff resources.

Keeter: The older generations were largely self-taught in either methods or statistics; there wasn't much else available.

Kalton: There has been a tendency for survey researchers to specialize over time as the field has developed, and this threatens the need for an appreciation of the big picture. You need specialists but a broad knowledge is needed too. Perhaps, one could train a group of generalists to carry out survey operations and help bridge the gaps between specialists.

### *How can we increase interest in this field of study?*

An audience member noted that no child today says 'I want to become a survey researcher when I grow up.' What can be done about this?

Audience commenter: people aren't aware that what they are interested in is 'survey research' – the name does not have widespread recognition. This might be a "PR" issue.

Meyers: There should be more outreach done to universities. She got into the field through Census recruiting on her university's campus.

Kalton: Surveys are a reasonable topic to introduce to middle-school aged students as an exercise. They can provide a readily understood introduction to survey research and also to practical statistics.

Moderator Dr. Presser and organizer Dr. Fricker thanked the panelists for their insights and the audience for the discussion.

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