

Interview with Irene Hess

Sampling Is in the Details



Ida Irene Hess was born in Muhlenberg County, Kentucky. Her father was a mining engineer in Central City. Her mother, who graduated from Valparaiso College with her father, worked at home. After graduating from Indiana University, Hess returned to Central City to teach math and English at the local junior high school from 1932 to 1942. In 1940, she came to work with Leslie Kish at the Survey Research Center. Under Kish, she trained many graduate students in the details of sampling. The following is an interview with Hess, conducted in February 2008 by Fritz Scheuren, an ASA past-president.

Fritz Scheuren

[Scheuren] Irene, it is so good to see you well and still active professionally at 97. Thanks for letting me interview you for all your many friends and colleagues who want to catch up with all you have done. Can we start with something about your family and early life before you came to the University of Michigan?

[Hess] I grew up in Kentucky. In addition to my parents, I had one sister, Beulah Marie. I was at Evansville College three years and then went to Indiana University for one year for a bachelor's degree, but that's the only degree I have. I guess you want me to talk about my start as a sampler?

[Scheuren] Well, of course, but a little more please about what you did before that. Didn't you teach in high school?

[Hess] No, I taught in junior high school in Central City, Kentucky. I was really not happy doing something like that, though. I was always interested in mathematics, and I would have liked teaching mathematics at a higher level. And, when you are teaching in public school, you first know that you're to teach children. And I really didn't enjoy that. I couldn't enjoy grade-school

STATISTICIANS IN HISTORY



Irene Hess (left and above) worked at the U.S. Census Bureau during the late '50s and stayed there until her retirement in 1981.

mathematics. I did not want to be responsible for teaching children and encouraging them in what I would consider to be the 'right way.'

So, I decided to try for statistical employment in the federal government. But to pass the civil service exam, you had to have a minimum of six hours in statistics and I did not have that, so I went about getting it. I considered Indiana first, but there wasn't anything there that interested me at that time. I was aware of Iowa. Leslie [Kish] asked me once why I didn't go to Iowa. I didn't tell him why, but my mother's parents lived in Iowa. It was always so hot in Iowa in the summer, so I just wouldn't consider going to school in Iowa because I just couldn't take that heat. I ordered catalogues from several universities—Indiana, Michigan, and Kentucky, perhaps others. I came to Michigan two summers (1940, 1941). That is how I got my six hours in statistics, and that was what I needed for the civil service exam, which I passed.

[Scheuren] And you came to Washington after that?

[Hess] Yes, it was right after the start of World War II in December and there was a civil service exam in May. The Bureau of Labor Statistics sent out invitations, and that's what I applied for and went first to the Bureau of Labor Statistics. Then, I was at the Bureau of Standards for a short time when they were developing the proximity fuse for bombs in the war. When the war was over, I decided I better get away from the Bureau of Standards. Of course, I had already been here, at Michigan, for two years because I was really interested in statistics. So, I went out to the [U.S.] Census Bureau and talked to somebody out there. They were just organizing the first sampling section at the [U.S.] Census Bureau.

Anyway, I joined the sampling section at the [U.S.] Census Bureau around 1944 or something like that. I was there until I came here in 1954. Kish was in charge of sampling here in

Michigan, but his assistant was going to get married and move away and Kish needed somebody else. I was recommended to Kish and he wrote to me. In the meantime, at the [U.S.] Census Bureau, I think at least twice, when I came to work in the morning, they told me I should leave. I had no retention points to justify my continuing employment at the [U.S.] Census Bureau. (When a person returned from military service, that person had to be re-employed.)

[Scheuren] They were laying off people?

[Hess] Yes, that was because of the return of veterans from the war, and every time someone came back and had to have a job, they selected me to lay off. That happened twice. Joe Steinberg worked hard to get me back each time. Anyway, on one Good Friday evening, I walked into my apartment and picked up my mail and there was this communication from Leslie Kish out here in Michigan.

When I got the letter, I felt it was going to be a job offer and I knew that I was going to take it, but I didn't want to. I liked Washington and I always liked the [U.S.] Census Bureau. I responded to Leslie's letter, and he invited me here to look around. I've been here ever since, and that was 1954. In 1981, I retired. I've been retired for 27 years.

[Scheuren] But you've been working here as a retired person, every weekday ever since? That's a real compliment to you and to the center.

[Hess] Well it has been a long time. The way it began was I had started this book [on sampling]. We had some very complex sample designs for various projects and it bothered me that nobody else around here knew anything about the sampling activities. So, I had written or was working on that book, *Sampling for Social Survey Research Surveys, 1947–1980*. I decided to stay and finish it.

[Scheuren] So, that is how you are continuing to work after retirement? What came next that kept you coming here every day?

[Hess] Roe Goodman. I don't know if you were ever acquainted with Goodman.

[Scheuren] No, I wasn't, but I know of his work.



Irene Hess worked with Leslie Kish, but also worked with Mildred "Jean" Harter, seen here with Hess (above and right) in Hess' office in the late '50s.



[Hess] Goodman was sold on controlled selection.

[Scheuren] Well, I am too. In fact, one of my former students, Yan Liu, did her dissertation on balanced sampling with me—a related idea.

[Hess] Goodman's family was here in Michigan, so he came in one day concerned about how well-controlled selection by computer is compared with hand-drawn controlled selection. So, that's how we happened to have the book *Controlled Selection Continued*. As I remember it, I think we were already well into the book before I had to retire.

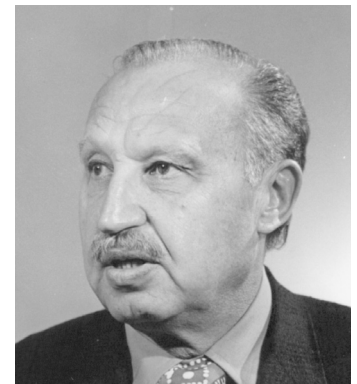
[Scheuren] You had to retire because of age? What was the age you had to retire?

[Hess] Yes, I had to retire at 70. That was in 1981. Anyway, Goodman was very interested in controlled selection and the material we set up and worked on in the book. The last time I saw Goodman was one afternoon before Easter. Goodman's wife was already in Kansas and he was going to go take the train and join her. Anyway, he put in his final edits to the book. We didn't know they were final edits, of course, at the time. Well, he went home to Kansas. He had a heart attack and died that night. That made me determined to finish the book.

When my time came to retire, I probably still had something to do there. I don't know if it was all done—probably not. I don't remember how long it took me to get these first two books finished after I retired.

[Scheuren] But there were more books after that weren't there?

Leslie Kish, ASA president in 1977; he passed away in 2000.



[Hess] Yes, several. The last one of these was published in September 2007, I think.

[Hess, *changing the subject*] As you know, the center has done a lot of work on telephone surveys. But, I never got very deeply into the telephone field. All of these things I worked on were face-to-face area probability surveys. I believed wholeheartedly in this approach. And, hence, I never got involved in the telephone business.

How it started at the center was Charlie Cannell and Bob Kahn got a project to work on telephone sampling. One day, I don't know if it was Cannell or Kahn, asked me if there was somebody in the sampling section who could work with them on this telephone project they had and I told them Bob Groves. And, I also told Bob Groves that Cannell and Kahn would be talking to him. And they did, and they worked on various projects, and Groves has been with telephone surveys ever since. I was no admirer or interested in the telephone. Anyway, I was getting to the point where I had to



Irene Hess (left) celebrates her 97th birthday with Rhea Kish on August 26, 2007.

retire, so it was not something for me to get into and I had enough of these other things [talked about earlier] to finish up.

[Scheuren] You sure did. Look at these accomplishments, all done after you retired, too.

[Hess] Now, I'm completely out of any project and I don't have anything that I really want to write about. So, I figure I ought to clean up everything that I have around here and get out.

[Scheuren] Don't do that. You do have more to do. At least help me edit this interview, please?

[Hess] Bob Groves says he just likes to have me around.

[Scheuren, *changing the subject*] Let me ask you about your work with Kish, and then we will finish up with your stint as the first chair of the Section on Survey Research Methods.

Books by Irene Hess

Probability Sampling of Hospitals and Patients (1961)
Irene Hess, Donald C. Reidel, and Thomas Fitzpatrick

Sampling for Social Research Surveys (1995) Irene Hess

Controlled Selection Continued (2002) Irene Hess and Steven G. Heeringa

The Practice of Survey Research at the Survey Research Center, 1947–1980 (1985) Irene Hess

[Hess] Early on, I did publish a number of papers with Kish. I remember a paper in *The American Statistician* on nonresponse. That paper was something I guess Kish shared with me, actually. That was just shortly after I came here.

[Scheuren] That nonresponse paper that you and Kish did is a wonderful piece of applied work. I have cited it many times. When I used to do the History Corner in *The American Statistician*, I republished it.

[Hess] After about 1960, Kish got out of the day-to-day sampling activities. He was going to educate the world. So, we didn't work together much after that. For example, he did not have anything to do with the projects that I was working on and what we were doing with Roe Goodman. Kish was not involved with any of that. He was just in a separate area of the center completely.

[Scheuren] One last item? Can you talk about your involvement with the Section on Survey Research Methods?

[Hess] Do you know how the section started? Within the Social Statistics Section, there was a subsection, and I guess it existed for maybe two or three years. But anyway, at one time, I was nominated for chair of the subsection. There was an election within the Social Statistics Section and I happened to have been nominated and then elected for chair of the subsection. In the meantime, the powers that be decided to have a separate section for survey research, and they said—because I had just won the election—that I would automatically be chair of the new Section on Survey Research Methods. So, I was the first chair of the Section on Survey Research Methods, 1977.

Do you remember this [showing the engraved silver plate given to her by the Section on Survey Research Methods in 1998]?

[Scheuren] You still have this? I remember it well. I think I may even have given it to you.

[Hess] That was my last annual meeting. I remember it very well. I was surprised, overwhelmed.

[Scheuren] Irene, you have done such wonderful things for us all. I'm going to read this inscription. The inscription says, "Irene Hess for distinguished service and unstinting efforts in the furtherance of survey research methods."

[Hess] In July 1999, I had extensive surgery on my right leg, and I have never been free of some kind of health struggle since that time. And I have never been to another meeting of the American Statistical Association, and I guess I'll never get there again. But anyway, 1998 was very special. That was a real graduation for me.

[Scheuren] Oh my, you've done so many things, Irene, and most of your major publications were finished after you retired. Earlier, you were so busy day-to-day that you didn't have time to write these books. But, you did write them, eventually. How can we all thank you? ■