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## Session 110IF

### Work of the SOA Research Effectiveness Task Force

**Track:** SOA Research

**Key words:** Research

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*Summary: The 1996–97 SOA Mission and Vision Statement identified the SOA’s mission as “to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business, and societal problems involving uncertain future events.” To that end, the SOA has allocated significant staff, volunteer, and financial resources to research project activities. Given this significant commitment of SOA resources, the Task Force on SOA Research Project Activity Effectiveness has been asked to conduct a review of the effectiveness of SOA research project activity. This session is intended to provide input for that review.*

Research should be viewed as a support function and not a profit center, and thus should not be expected to generate revenue directly, nor should there be an expectation of recovering many costs.

Research generates long-term value to the profession in the sense that ideas which expand the science can ultimately be used in improving the application of the science. Therefore, it should also not be expected that research will necessarily give immediate value to a person’s job unless it’s targeted to do so. Some research will be targeted to solve a particular current problem. Data collection and analysis is one kind of research that may be immediately useful.

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**Editor’s Note:** Because the recording and transcription of this session were unusable, this is not a transcript of the actual session. This summary was taken from the report to the SOA Board of Governors “A Review of Society of Actuaries Research Project Activity Effectiveness,” which was prepared by the SOA Task Force on Research Project Activity Effectiveness.

Every project is going to have a relatively narrow audience unless there is a general public interest in the topic, such as for Social Security. Therefore, you can't expect a broad awareness or readership, even among SOA members. What you hope for is a very positive view of what's being done as a whole. For any particular member, you're never going to have an in-depth knowledge of many projects across all practice areas. For example, very few people will read all the articles in an issue of the *North American Actuarial Journal (NAAJ)*. They may read one or two articles in the *NAAJ* if something catches their fancy or if they're working in the area to which the article pertains, so the audience for any specific project should be expected to be small. However, all projects combined support the profession. It's important that the general membership feel good about the fact that research is being done, but the vast majority of individual members will not have detailed knowledge of what is being done.

In terms of selling research products for money, it's useful that some things are sold as monographs because that's a way to distribute information. If you produce something, it's wise to charge for it versus giving it away. Research shouldn't be viewed as a source of revenue. In general, you won't recover your research costs for most projects. The nature of research is such that one should not expect to recover costs.

One issue that we need to incorporate in the task force report is the issue of expectations. What level of knowledge about the SOA research effort can reasonably be expected from individual members? We have a very diverse and diffused profession, by practice and geographically. Unless you're addressing a problem that relates to a current hot topic (e.g., a specific aspect of pension funding practice, or some comparable project in the insurance area), you're not going to have a big audience.

Integrating the research into other SOA activities will show the value of the research more fully and make the research more widely known.

There's a question about how we generate ideas for research. Ideally, what happens for practice area research—research that is prioritized by one of the four practice areas—is that the practice advancement committee is supposed to set the direction for the practice area and thus should identify and prioritize important issues for the practice area to address. Then the research committee identifies and implements projects that will support those priorities. In reality, the research committee often generates the ideas on its own. With respect to what we call knowledge extension research—research that is driven by people who are already doing research—there is the Committee on Knowledge Extension Research, which sponsors a grants program. The grants program funds research based on the ideas

that are proposed by researchers. The key criterion in the review and evaluation process for the grants is that the research should have the potential to contribute significantly to the advancement of knowledge in actuarial science. Idea generation is a key step. It is important to ensure that these new ideas are priorities for the SOA, because of limited financial, volunteer, and staff resources.

An important issue is the link between the academic and the business community. The long-term value of research is the potential to advance actuarial science both in terms of application and theory. The question is how to connect the theory to the application. There is often a time lag in establishing this link. One cannot expect that insurance companies are primarily focused on theoretical research. Thus, it's really important for the profession to conduct theoretical research and make the link to the application so that new theory ultimately enhances the way that actuarial knowledge is applied. Within an insurance company, the focus is on implementing pricing and valuation—those things that are important to make sure the products get out and things get done on a day-to-day basis. It is important that they have a continuing stream of new ideas to keep the science thriving or else it's not going to be more than a mechanical process.

It is a bit unrealistic to expect large funding for theoretical research from insurance companies, but funds for current applications research can be obtained from them.

Chief actuaries are an audience who should be informed about all research. They are decision makers.

Public interest research is another issue. The way that public interest research is funded is probably different from how current applications research is funded. Research done for the public or the profession is different from research done for a company. As the Research Effectiveness Task Force began its work, Dave Becker identified four basic types of research. There is research that is basic; research that is in the public interest; research that develops or expands the profession; and, research with current applications. An issue is how to fund each type. The funding sources can be different for each type because of the different audiences who are interested in each type. For example, how do you fund basic research? You have to make a case to companies that it's in their long-term best interest to fund that type of research.

The Casualty Actuarial Society distributes bibliographies on specific topics. The bibliographies are not exactly like the practice notes of the AAA. They are more in the nature of a bibliography. In terms of having actuaries understand the value of research, a bibliographic format might be helpful as a way to show what research has been done.

The results of research are being used, but those using them may not realize they are using results of prior research. Results are not being used to the ideal extent since many members are not aware of them. It would help to sell the research to let people know that someone actually had done research to develop the concepts that are in current use.

The SOA and the profession have relatively few dollars to spend. We can maximize those dollars by drawing in other partners. Even if we don't get the exclusive credit for some of these things, we'll be able to do far more research.

Are we discussing what all SOA members are doing in research, or what research is being sponsored and encouraged by the SOA? If members are doing research that's independent of formal SOA research, it still is something that's being encouraged by the SOA. But that's a hard thing to measure. It may be something that happens that we should just be aware of. For the purpose of this particular effectiveness study, how much we should incorporate about such research is not clear.

It is important to connect with people who have research skills and ability. SOA research papers for credit and intensive seminar education options are helpful in developing an interest and ability in research.

It's extremely important that the actuarial journals are in both university and corporate libraries—we can give them away or sell them. It is partly marketing and partly knowledge dissemination. A related question is the vehicles by which we distribute research. We need monographs, lots of books on shelves, papers in journals, etc. There should be no limit to our creativity in the use of vehicles for dissemination.

Harry Panjer made a very interesting case that there really might not be a significant awareness problem. He said that we may have the wrong perceptions. There is merit to the point that the broad membership can't be expected to know very much about a wide range of research activities. Each of the practice areas are getting more specialized and to even keep up within one's own field is a major undertaking.

There are people who are working in areas that are related to actuarial science. It is important to invite papers from people working in related areas to publish in the *NAAJ*. When our own members publish in other journals, we don't know about it and don't measure it, but they do it. Unless we identify where the papers that result from SOA research are published, we cannot fully appreciate each and every audience reached by SOA research. What we are doing by publishing in international actuarial journals is reaching broad actuarial audiences, which is very

important because you reach other people who are doing actuarial research. When you reach other people who are doing research, you support that research. The knowledge expands. It's a different external audience from other professions. It's the same profession but in other geographic areas. It is important to point out where the end products of SOA-funded research are published because that indicates the breadth of audience that SOA research is reaching.

Suggest assigning someone the responsibility to summarize how the theory presented in a particular research paper can be applied. Also suggest listing the skills necessary to understand a particular theoretical paper.