SOCIETY OF ACTUARIES

Research Project Approaches

Introduction

This document is intended to serve as a resource for groups (Research Committees, Project Oversight Groups, etc.) initiating research efforts. It lists a variety of approaches that may be used for conducting SOA research and options for soliciting researchers. Groups may wish to refer to this document anytime throughout the development process. It can be particularly helpful at the beginning of the development process to gain an understanding of the range of feasible approaches. For any project, a combination of approaches can be used. In other words, the individual approaches described in this document are not intended to be mutually exclusive. SOA staff has template documents for several of these approaches to help initiate the process. It is also important to note that new approaches may arise not listed in this document. We support and encourage new approaches to the extent they better meet the needs of our audiences.

Audience

Before embarking on any research effort, it is important to think about who the audience will be. Examples of audiences are:

- Actuaries only
- Professionals outside the actuarial profession
- General public and media

When thinking about the intended audiences, the following are some useful framing questions:

- Who is the primary audience and are there applicable secondary audiences?
- Where are the audiences located? One country? Multiple regions? Globally?
- Are the audiences among the ones listed in the SOA strategic plan?

Clearly defining intended audiences applies to any of the research approaches. The Communication Checklist described later in this document contains an extensive listing of potential audiences to consider.

Research and Publishing Approaches

Traditional Research Report – A report that is typically 15 to 100 pages and follows a format that thoroughly describes the scope of work undertaken, results and conclusions. An important aspect of a traditional research report is that it is written with language that will be suitable for the intended audience. Some reports are targeted at technical audiences and others have broader audiences. Normally, an executive summary will be included to provide readers with the primary takeaways. The preceding considerations about language and executive summaries are applicable to many of the other approaches listed in this document. Examples: Medicaid Managed Care Organizations and Predictive Models on Conversion Studies for the Level Premium Term Plans

Literature Review – A report that summarizes and analyzes previously published papers and other content relevant to the research topic. The report may include brief summaries of relevant papers as well as a narrative that synthesizes the papers at a macro level. A brief literature review may also be included as part of a more expanded research report. The extent of the review also depends on the desired literature to be examined. This may focus on peer-reviewed publications or alternatively, more broadly including consulting firm reports, government reports, etc. A primary consideration for the literature review is to ensure that it is appropriate for the intended audience – practitioners, academics, or both. Depending on the topic and who is engaged, this can be an expensive undertaking. Examples: Implications of the Cost of End of Life Care and Living to 100 Insight on the Challenges and Opportunities of Longevity

Online and Paper Surveys - The SOA has tools to create online surveys targeted at specific audiences. The types of survey questions used can vary widely based on the expected respondents to a survey. For instance, there is a significant distinction between surveys focused on SOA members vs. the public. In addition, paper surveys are still sometimes used. Surveys are typically drafted by research teams and reviewed by the POG. Surveys where there is access to the intended respondents are much easier and less expensive to execute than those where a researcher needs to gain access to the respondents in order to achieve a representative sample. Examples: 2015 Risks and Process of Retirement Survey and 2015 Emerging Risks Survey

Modeling - An approach that is often used both separately and in combination with other approaches is the creation of a research model. Models can be designed to be fairly simple to illustrate a concept or quite sophisticated and break new ground. Some models may also be made available in Excel or another format as part of a final deliverable. Examples: Optimal Retirement Income Solutions and Nested Stochastic Modeling

Interviews - Face-to-face or phone interviews are used to obtain qualitative observations and data. They are often used on research projects where the objective is to understand the current state of practice. Interviews may be based on scripted questions or more freeform. Projects focused on the public generally require a professional researcher and a substantial budget. Examples: Regulatory Risk and North American Insurance Organizations: A Company Perspective and Middle-Market Life Insurance, Findings from Industry Thought Leaders

Focus Groups – Focus groups are used for research projects where the interaction among small groups of participants can lead to insights that would be difficult to obtain through individual interviews. Projects generally require a researcher with extensive experience and substantial budget. Example: Post-Retirement Experiences of Individuals Retired 15 Years or More

Collection of Papers – When it is desired to obtain a number of perspectives on a particular research topic, a call for papers is commonly issued. Papers submitted in response to a call for papers are not considered as a work for hire nor does the SOA manage the study/research that produces the paper. Accepted papers are collected in a monograph and often form the basis for a series of meeting sessions or events. Prizes for papers judged to be of the highest quality are often awarded. A small budget is needed if there are monetary prizes and reimbursement of travel expenses for authors invited to speak at an SOA event. It usually takes more than a year to execute a call for papers. It is common to ask for abstracts first and screen the abstracts before the papers are written. Examples: Managing the Impact of Long-Term Care Needs and Expense on Retirement Security Monograph and 2014 Living to 100 Call for Papers Monograph

Collection of Essays - Similar to a collection of papers, but the focus is on shorter pieces. These essays are typically 1,500 – 2,500 words. As in a collection of papers, a small budget is needed if there are monetary prizes and reimbursement of travel expenses if authors are invited to speak at an SOA event. The essays will normally be published in a monograph. These projects are much faster to execute than a call for papers, and often can be completed in less than six months. Examples: Diverse Risks Essays Collection and Data Visualization in Actuarial Practice Call for Articles

PowerPoint/Chartpack – These can be used as a supplement to a traditional research report and help readers decide if it would be beneficial for them to read the entire report. They are often the product of material that has been created for a presentation at an SOA event. In some cases, Powerpoint has been used to create the entire traditional report. Some research organizations do this as a standard practice. In this regard, it often leads to a more graphical way of thinking for the report. Powerpoint slides may also be made available to help members who would like to present the material. Examples: Will Retirement Assets Last a Lifetime? and Understanding the Changing Middle Market for Life Insurance in China

Issue Briefs/Special Topics Reports – These are reports usually 3-7 pages long, but can be significantly longer. They can be used for several different purposes including succinctly addressing a particular topic or as a supplement to a traditional research report. They are useful for focusing the messages or results of a particular topic or effort. They usually have an enhanced design element and are targeted at multiple audiences. Examples: Managing Retirement Decisions and The Future of Retirement in China

One page write-ups - Similar to an issue brief, but condensed for reading ease to one page. These are effective for focused messages and efficient fact gathering by readers. They are also useful for providing information about a series of work. One page write-ups make excellent handouts, particularly if they describe a series of work and provide information about accessing the material. Example: Economic Scenario Generators At-A-Glance and Retirement Research Summary

Infographic – A graphic presentation of research results or information with an integrated message. These can be quite appealing for readers and make for effective assimilation of information. They require professional help to turn the information into an effective visual. Infographics can be prepared as a single item or a series, and they require focused messages and data as input. Example: Age Wise Series

Software tools - These are typically Excel workbooks, web-based tools, programs written in languages such as R, and mobile apps. These tools have been well received over the years as SOA audiences like the tangible output and interactive opportunity software provides. As a policy, the SOA only creates research software for educational use as opposed to commercial purposes. Examples: Modeling Long Term Healthcare Cost Trend-Getzen Model and Extreme Events for Insurers

Data Analyses – Data is collected from insurance companies, government organizations, and other entities. The data is then aggregated and compiled into tables. This approach is typically used by Committees that conduct experience studies, although it is used on occasion to produce practice research reports. Examples: Group Long Term Disability Benefit Offset Study-2012 and Report on the Conversation Experience Study for Level Premium Term Plans

Delphi Study/Expert Panel – Questions are posed to a group of experts usually with the goal of forecasting plausible scenarios related to an area of actuarial interest, such as economic variables or new products. The panel responds to questionnaires over several rounds with the questions becoming more focused based on information gleaned from each round. Examples: Delphi Study of Economic Variables and Land This Plane: A Delphi Study of LTC Financing Solutions

Audio/Visual – The final deliverable of a research project may include an audio or video presentation or interview. This is a newer form of research approach and is expected to become more frequent in the future. Examples: Pensions and Retirement Podcast Series and Data Visualization in Actuarial Practice Call for Articles Video.

Finding Researcher/Authors

Request for Proposals - A research team is contractually engaged to conduct research through a Request for Proposals (RFP) that describes the desired research and deliverables. Actuaries, academics, and non-actuarial professionals are encouraged to submit proposals in response to an RFP. RFPs are normally for hired research work and funding has been allocated to pay researchers. Researchers responding to an RFP will sometimes conduct research on a pro-bono or heavily subsidized basis. This often happens when their employer wishes to donate the work to the SOA. An RFP can be written in a directed way about a particular topic. Alternatively, an RFP may be written to be more open and encourage a variety of responses to an overall theme. In this case, proposers have more latitude in developing their proposals.

Working Group – In some instances, an unpaid working group will conduct the research and write a research report. This may be done because there is no funding to secure a hired researcher or the subject matter is such that having a group of authors with different perspectives makes for a better product. Often, a working group may want to produce a document that supplements a hired researcher's report. In any of these situations, a challenge can be reaching a final version of a report because of multiple authors. To resolve this, a writer/ editor may be hired to unify the material and provide a consistent voice.

Unsolicited Proposals – A proposal could come directly from a researcher, instead of in response to an RFP. The proposal may be vetted by a committee(s) aligned with the proposal topic prior to submitting the proposal. The research committee then reviews the merits of the proposal with regard to current research goals.

Call for Papers or Essays – If multiple perspectives and authors are desired for a topic, a call for papers or essays can be issued. The intent is to receive a significant amount of publishable responses (10 to 40) to produce a well-rounded collection and for potential presentation at an SOA event.

Communications Checklist

There is another document maintained by SOA research staff that extensively lists options for dissemination of research material. This Communication Checklist is included among the resource documents found on the research resource webpage. Because of the close connection between research approaches and research dissemination, it is helpful to review the Communication Checklist throughout the process of developing and completing a research project.

Budget

The approaches listed above can vary widely in how much budget is required to complete them. All of the groups sponsoring SOA research have limited budgets. Approaches that go beyond a traditional research report such as focus groups and software tools can add significantly to the budget. Usually, a specific budget amount is not included in an RFP. This is done to allow flexibility in proposal responses and to encourage cost efficiency. In some instances, it is known upfront that funding will be limited to a certain amount. As a result, it is appropriate that this amount appear in the RFP in order to save time for both the researchers and the proposal reviewers.

There are no strict rules for setting a project budget. Often, it is helpful to review similar projects that have been recently completed to get a sense of what cost elements are involved and a rough dollar figure. Regardless of how the overall budget is set, it is always possible to explore negotiating the price of a proposal. This may happen when a researcher unfamiliar with SOA research proposes a figure clearly higher than what the SOA can bear. Many times, proposers are unable to negotiate on price because of their institution's policies. However, if an expensive proposal is worth pursuing, there is no downside to inquiring about price flexibility.

For calls for papers and essays, a budget for prizes can help incentivize responses. Of course, it costs more than calls without prizes. However, respondents appreciate some monetary recognition for their work and this can increase the number of responses.

For budget issues, research staff can provide guidance and cost estimates based on previous efforts.

Partners

Before selecting research approaches, another consideration at the outset of a project is whether it would be beneficial to seek partners. Partners may include other SOA research committees and sections as well as outside actuarial and non-actuarial organizations. The nature of the partnership can vary depending upon the level of involvement the partner wishes. This can range from acting in an advisory capacity to providing a significant portion of funding. Coordination of research approaches and project management with partners may require additional steps to reach project completion. However, this should be weighed against the additional value a partner can bring to raising the quality and reach of the final material.