Actuarial Professionalism: Judge and Jury

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Active participation in the Society of Actuaries is an important aspect of membership. While the positive contributions of professional societies and associations are well-recognized and encouraged, association activities are vulnerable to close antitrust scrutiny. By their very nature, associations bring together industry competitors and other market participants.

The United States antitrust laws aim to protect consumers by preserving the free economy and prohibiting anti-competitive business practices; they promote competition. There are both state and federal antitrust laws, although state antitrust laws closely follow federal law. The Sherman Act, is the primary U.S. antitrust law pertaining to association activities. The Sherman Act prohibits every contract, combination or conspiracy that places an unreasonable restraint on trade. There are, however, some activities that are illegal under all circumstances, such as price fixing, market allocation and collusive bidding.

There is no safe harbor under the antitrust law for professional association activities. Therefore, association meeting participants should refrain from discussing any activity that could potentially be construed as having an anti-competitive effect. Discussions relating to product or service pricing, market allocations, membership restrictions, product standardization or other conditions on trade could arguably be perceived as a restraint on trade and may expose the SOA and its members to antitrust enforcement procedures.

While participating in all SOA in person meetings, webinars, teleconferences or side discussions, you should avoid discussing competitively sensitive information with competitors and follow these guidelines:

- **Do not** discuss prices for services or products or anything else that might affect prices.
- **Do not** discuss what you or other entities plan to do in a particular geographic or product markets or with particular customers.
- **Do not** speak on behalf of the SOA or any of its committees unless specifically authorized to do so.
- **Do leave** a meeting where any anticompetitive pricing or market allocation discussion occurs.
- **Do alert** SOA staff and/or legal counsel to any concerning discussions.
- **Do consult** with legal counsel before raising any matter or making a statement that may involve competitively sensitive information.

Adherence to these guidelines involves not only avoidance of antitrust violations, but avoidance of behavior which might be so construed. These guidelines only provide an overview of prohibited activities. SOA legal counsel reviews meeting agenda and materials as deemed appropriate and any discussion that departs from the formal agenda should be scrutinized carefully. Antitrust compliance is everyone’s responsibility; however, please seek legal counsel if you have any questions or concerns.
Presentation Disclaimer

Presentations are intended for educational purposes only and do not replace independent professional judgment. Statements of fact and opinions expressed are those of the participants individually and, unless expressly stated to the contrary, are not the opinion or position of the Society of Actuaries, its cosponsors or its committees. The Society of Actuaries does not endorse or approve, and assumes no responsibility for, the content, accuracy or completeness of the information presented. Attendees should note that the sessions are audio-recorded and may be published in various media, including print, audio and video formats without further notice.
Mock Trial

• We won’t stick too strictly to courtroom protocol.
• Not intended to imply that these cases are matters that should be taken up in a court of law. In fact, most should not.
• **YOU** are the jury! Verdicts via *live polling*.
• We’re going to have some fun, but the value comes from the discussion.
Test Poll Question

Would you rather...

1. Watch the sunrise?
2. Watch the sunset?
Case #1: States of PANIC
DEFINITION OF A MODEL

• A simplified representation of relationships among real world variables, entities, or events using statistical, financial, economic, mathematical, non-quantitative, or scientific concepts and equations.

• A model consists of three components:
  • an information input component
    • which delivers data and assumptions to the model;
  • a processing component
    • which transforms input into output;
  • and a results component
    • which translates the output into useful business information.
3.4 RELIANCE ON MODELS DEVELOPED BY OTHERS

If the actuary relies on a model designed, developed, or modified by others, such as a vendor or colleague, and the actuary has a limited ability either to obtain information about the model or to understand the underlying workings of the model, the actuary should disclose the extent of such reliance. In addition, the actuary should make a reasonable attempt to have a basic understanding of the model, including the following, as appropriate:

a. the designer’s or developer’s original intended purpose for the model;

b. the general operation of the model;

c. major sensitivities and dependencies within the model; and

d. key strengths and limitations of the model.

When relying on models developed by others, the actuary should make practical efforts to comply with other applicable sections of this standard.
MODEL RISK

• The risk of adverse consequences resulting from reliance on a model that does not adequately represent that which is being modeled, or the risk of misuse or misinterpretation.
3.6.2 MODEL OUTPUT VALIDATION

The actuary should validate that the model output reasonably represents that which is being modeled. Depending on the intended purpose, model output validation may include the following:

a. testing, where applicable, preliminary model output against historical actual results to verify that modeled output would bear a reasonable relationship to actual results over a given time period if input to the model were set to be consistent with the conditions prevailing during such period;

b. evaluating whether the model applied to hold-out data produces model output that is reasonably consistent with model output developed without the hold-out data, as may be used for predictive models;

c. performing statistical or analytical tests on model output to assess their reasonableness;

d. running tests of variations on key assumptions to test that changes in the output are consistent with the expectations given the changes in the input; and

e. comparing model output to those of an alternative model(s), where appropriate.
C5 NEWS
A WORLD WITHOUT INSURANCE
2020 ACTUARY PREDICTS DEMISE OF INDUSTRY
3.2 UNDERSTANDING THE MODEL

When expressing an opinion on or communicating results of the model, the actuary should understand the following:

a. important aspects of the model being used, including but not limited to, basic operations, important dependencies, and major sensitivities;

b. known weaknesses in assumptions used as input, known weaknesses in methods or other known limitations of the model that have material implications; and

c. limitations of data or information, time constraints, or other practical considerations that could materially impact the model’s ability to meet its intended purpose.
3.4.1 UNCERTAINTY OR RISK

The actuary should consider what cautions regarding possible uncertainty or risk in any results should be included in the actuarial report.

3.7 RESPONSIBILITY TO OTHER USERS

An actuarial document may be used in a way that may influence persons who are not intended users. The actuary should recognize the risks of misquotation, misinterpretation, or other misuse of such a document and should take reasonable steps to ensure that the actuarial document is clear and presented fairly. To help prevent misuse, the actuary may include language in the actuarial document that limits its distribution to other users (for example, by stating that it may only be provided to such parties in its entirety or only with the actuary’s consent).
Verdict on the Severity of Violations related to **Model Reliance**

- **A: Totally Guilty.** The actuary did not behave in accordance with the standard.
- **B: Partially Guilty.** The actuary made efforts to comply with the standard, but actions taken were inadequate or incomplete.
- **C: Not Guilty:** The actuary complied with the standard.
Verdict on the Severity of Violations related to **Model Validation**

- **A: Totally Guilty.** The actuary did not behave in accordance with the standard.
- **B: Partially Guilty.** The actuary made efforts to comply with the standard, but actions taken were inadequate or incomplete.
- **C: Not Guilty:** The actuary complied with the standard.
Verdict on the Severity of Violations related to Model Risk Mitigation

• A: **Totally Guilty.** The actuary did not behave in accordance with the standard.

• B: **Partially Guilty.** The actuary made efforts to comply with the standard, but actions taken were inadequate or incomplete.

• C: **Not Guilty:** The actuary complied with the standard.
Questions to Ponder/Discuss

• What are some good practices when borrowing models from nontraditional actuarial areas like epidemiology, statistics/predictive analytics/machine learning, etc.?

• How do you get comfortable when relying on models from others? What if you are not an expert in the model you are relying on?

• How do you validate a model that involves new or unknown risks?
  • Also note ASOP 35, section 3.3.5, ‘selecting reasonable assumptions’ for Pension actuaries.

• Are disclosures sufficient protection against misinterpretation?
Case #2: With a Little Help from My Social Media Friends
LinkedIn Page
Code of Professional Conduct

• Precept 1
  • An Actuary shall act honestly, with integrity and competence, and in a manner to fulfill the profession’s responsibility to the public and to uphold the reputation of the actuarial profession.
Comment from post on right:

McCartney’s Long and Whining Road

I'd never buy or recommend that anyone purchase ACA plans.

Like · Reply
Abbey Health Care Code of Conduct

• Discipline
  • Certain rules governing employee conduct and responsibilities have been established over time that are in the best interests of the Company, employees, and vendors. Employees are expected to conduct themselves in a way that does not detract from the best interests of the Company.
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    • Annotation 1-1: An Actuary shall perform Actuarial Services with skill and care.
    • Annotation 1-2: An Actuary shall not provide Actuarial Services for any Principal if the Actuary has reason to believe that such services may be used to violate or evade the Law or in a manner that would be detrimental to the reputation of the actuarial profession.
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    • Annotation 1-3: An Actuary shall not use a relationship with a third party or with a present or prospective Principal to attempt to obtain illegal or materially improper treatment from one such party on behalf of the other party.
    • Annotation 1-4. An Actuary shall not engage in any professional conduct involving dishonesty, fraud, deceit, or misrepresentation or commit any act that reflects adversely on the actuarial profession.
Poll 1

• Should Mrs. McCartney have been terminated based on actions seen on social media?
  • Yes
  • No
  • Should this have really been a court case?
Poll 2

• As an actuary under the Code, is it ok to have a Facebook page that contains very political and controversial topics that instigate debates and arguments?
  • Yes
  • No
  • Depends
Poll 3

• The Code of Conduct, particularly Precept 1, applies:
  a. All of the time
  b. Any time you do anything actuarial, including informal or online discussion
  c. Only while acting in a professional capacity as an actuary
Poll 4

• Do ‘controversial opinions’ reflect adversely on the actuarial profession?
  • Yes
  • No
  • It depends
Questions to discuss

• Would Paula’s actions have been more permissible if she were not employed by a Health Insurance Company?

• Does it make a difference if the posts are open to the public, or limited to ‘subscribers’ or some form of closed group?
Case #3: Food For Thought
Exhibit A: ASOP 41 Actuarial Communications—Section 4.1.3.d

4.1 Disclosures in any Actuarial Communication—Disclosures in any actuarial communication should include the following:

...  

4.1.3 Disclosures in Actuarial Reports—In addition to the information necessary to satisfy section 3.2, any actuarial report should disclose the following information, unless the actuary determines that it is inappropriate to do so (see section 3.3):

...  
d. any cautions about risk and uncertainty (see section 3.4.1);
Exhibit B: Cupcake City Retirement Plan Actuarial Valuation Report and the Impact of COVID-19
This actuarial report was prepared for the board of trustees of the Cupcake City Retirement Plan in accordance with state statute §3.14159 that defines plan benefits and with Actuarial Standards of Practice. This report shows results of actuarial calculations of plan liabilities as of June 30, 2020. Like most actuarial calculations, the actuarial calculation of plan liabilities are estimates based on actuarial assumptions about uncertain future economic and demographic events that affect the plan, its participants and its assets. Future results of actuarial calculations may differ significantly from the results presented in this report because of many factors, included but not limited to, actual experience that varies from the actuarial assumptions, changes in actuarial assumptions, changes in the actuarial methods and techniques applied to these measurements, and changes in plan benefits.
Polling Question: The Verdict

Jurors, do you find the Defendant guilty or not guilty of violating ASOP 41 *Actuarial Communications* section 4.1.3.d?

1. Guilty: Defendant *violated* ASOP 41 §4.1.3.d
2. Not Guilty: Defendant *did not violate* ASOP 41 §4.1.3.d
Polling Question: The Verdict

Jurors, what would your verdict be if you had known that in her cover letter for the report, the Defendant cautioned that relatively little is known about how COVID-19 will transpire over the next several years, and it is too early to truly understand the impact of COVID-19?

1. Guilty: Defendant violated ASOP 41 §4.1.3.d
2. Not Guilty: Defendant did not violate ASOP 41 §4.1.3.d
Polling Question: The Verdict

Jurors, what would your verdict be if you had known that after receiving the Defendant’s report, the trustees were disappointed because they didn’t feel they could take her numbers “to the bank.” So they fired the Defendant and hired another actuarial firm?

1. Guilty: Defendant violated ASOP 41 §4.1.3.d
2. Not Guilty: Defendant did not violate ASOP 41 §4.1.3.d
Case #4: Use The Force
3.4.6 Subsequent Events—The actuary should disclose any relevant event that meets the following conditions:

a. it becomes known to the actuary after the latest information date described in section 3.4.5;

b. it becomes known to the actuary before the report is issued;

c. it may have a material effect on the actuarial findings if it were reflected in the actuarial findings; and

d. it is impractical to revise the report before it is issued.

If the actuary learns of changes to data or other information (on or before the information date) after some findings have been communicated, but before the report is completed, the actuary should communicate those changes, and their implications, to any intended user to whom the actuary has communicated findings.

From ASOP 41: Actuarial Communications
Polling Question

Jurors, have you reached a verdict? Is Ms. Skywalker:

A. Guilty: She did not appropriately follow ASOP 41
B. Not Guilty: She did appropriately follow ASOP 41
Polling Question

Would your verdict have changed if the opinion had been filed in late February (before COVID-19 became a big issue in the U.S.) instead of on May 4\textsuperscript{th}?

A. Yes
B. No
C. Do. Or do not. There is no try.
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